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Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

R-218/66
December 1966

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This is the sixth group of items disseminated as part of NPIC/R-218/66, Southeast Asia, Activity Report, POL Facilities, North Vietnam. Sixteen items are included in this portion of the report, 6 newly reported sites and 10 updated items. The updated items are as follows:

25X1

Viet Tri Petroleum Products Storage, A1, A2, X-A1, X-A2;
Phu Van POL Storage, A21, A22, X-A21;
Vinh Petroleum Products Storage, X-A23, X-A24;
Can Thon Petroleum Products Storage, B33, B34, X-B33;
Ha Noi Petroleum Products Storage Duc Noi (Area 2), B37, B38, X-B37;
Ha Noi Petroleum Products Storage Duc Noi (Area 4), B41, B42, X-B41;
Cu Van Petroleum Products Storage, B43, B44, X-B43;
Cu Van Petroleum Products Storage East UG, B45, B46, X-B45;
Phuc Loi Petroleum Products Storage Navy, B77, B78, X-B77; and
Tho Trang Petroleum Products Storage, B79, B80, X-B79.

Each new or updated page carries the date of the covering memo directly under the NPIC report number. NPIC will continue to disseminate new and updated items on a continuing basis as photography becomes available.

Declass Review, NIMA/DoD

DIA HAS NO OBJECTION TO DECLASSIFICATION
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DIA review(s) completed.

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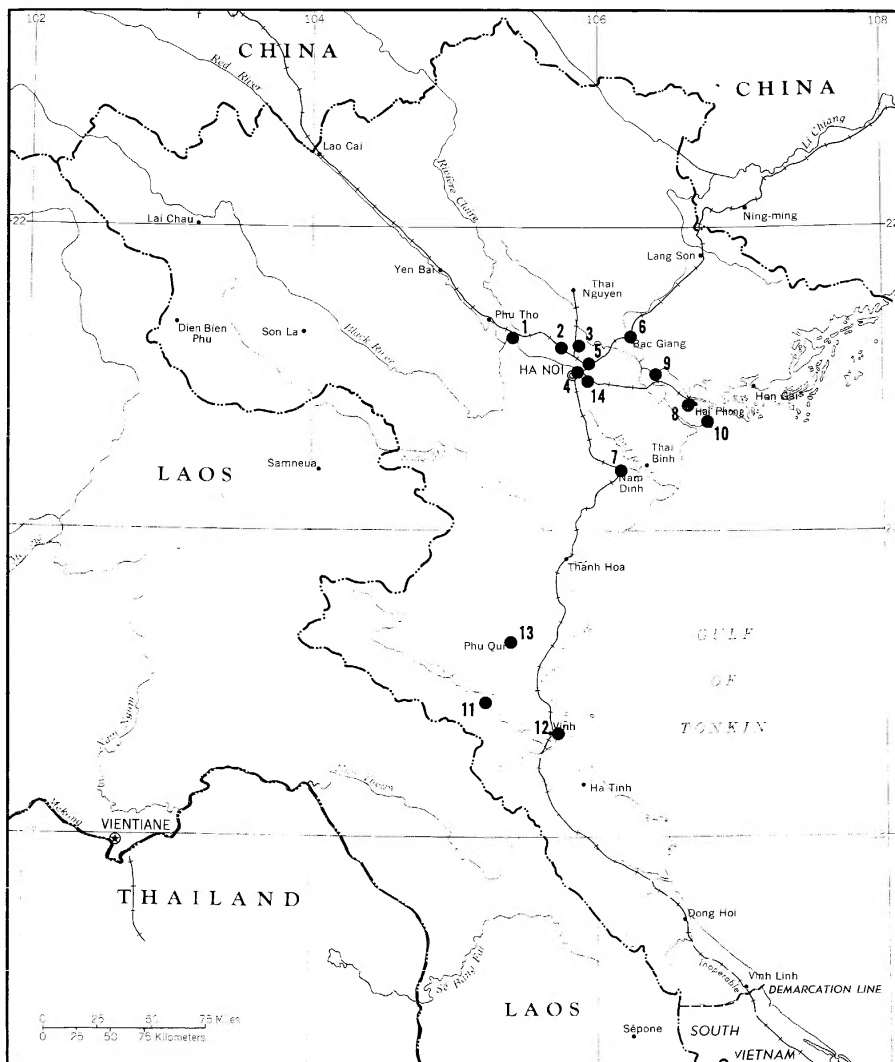
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KEY TO CATEGORY A

PERMANENT STORAGE AND HANDLING AREAS

1. Viet Tri Petroleum Products Storage
2. Phuc Yen Airfield POL Storage Area
3. Phuc Yen Petroleum Products Storage NNE UG
4. Ha Noi Petroleum Products Storage Thanh Am
5. Nguyen Khe Petroleum Products Storage
6. Bac Giang Petroleum Products Storage
7. Nam Dinh Petroleum Products Storage
8. Hai Phong Petroleum Products Storage
9. Duong Nham Petroleum Products Storage
10. Do Son Petroleum Storage
11. Phu Van POL Storage
12. Vinh Petroleum Products Storage
13. Phu Qui Petroleum Products Storage
14. Ha Noi/Gia Lam Airfield POL Storage Area

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WJ453547
UTM COORDINATES

2117N 10526E
GEOGRAPHIC COORDINATES

NAME: VIET TRI PETROLEUM PRODUCTS STORAGE

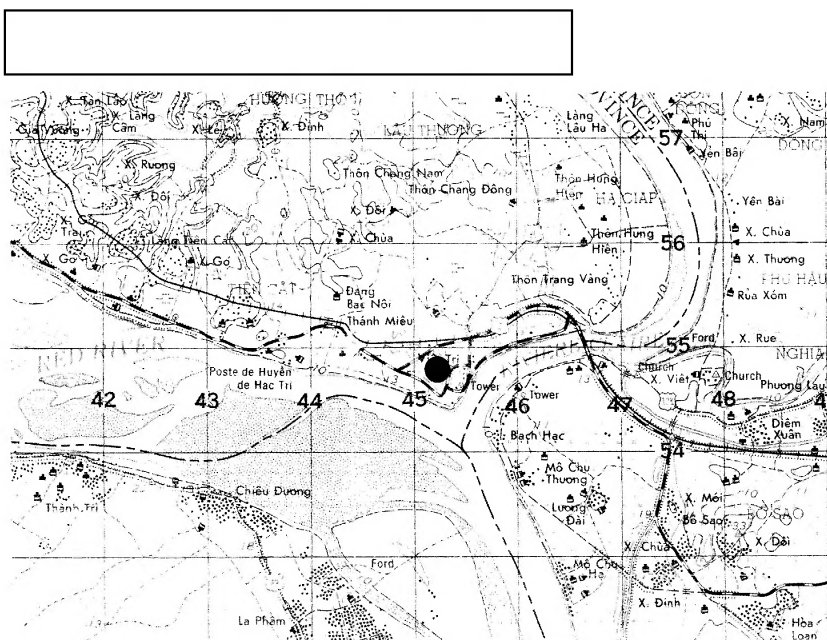
LOCATION: IMMEDIATELY SOUTH OF VIET TRI, AT THE CONFLUENCE OF THE RED AND
CLAIRE RIVERS, 28 NM NW OF HA NOI

DESCRIPTION: PRIOR TO FIRST STRIKE, FACILITY CONTAINED 3 MEDIUM ABOVEGROUND, 2 MEDIUM UNDERGROUND CYLINDRICAL, AND 4 SERVICE TANKS. THE LARGE TANK OBSERVED ON PHOTOGRAPHY [REDACTED] WAS REMOVED. PHOTOGRAPHY OF [REDACTED] REVEALS 3 MEDIUM TANKS UNUSABLE DUE TO BOMB DAMAGE OR DISMANTLING; 1 UNDERGROUND TANK UNDAMAGED AND 1 WITH TOP SECTION UNCOVERED; AND 2 DESTROYED, 1 DAMAGED, AND 1 UNDAMAGED SERVICE TANK. APPROXIMATELY 450 DRUMS (PROBABLY EMPTY) ARE STACKED NEAR TRANSHIPMENT POINT.

ESTIMATED CAPACITY: PRE-STRIKE TANK 1,670 MT (EXCLUSIVE OF UNDERGROUND TANKS)
POST-STRIKE TANK 25 MT (EXCLUSIVE OF UNDERGROUND TANKS)

MAP REFERENCES: AMS SERIES L701, SHEET 6074 1, 1ST ED, JUN 65 (U)
AMS SERIES JOGGG) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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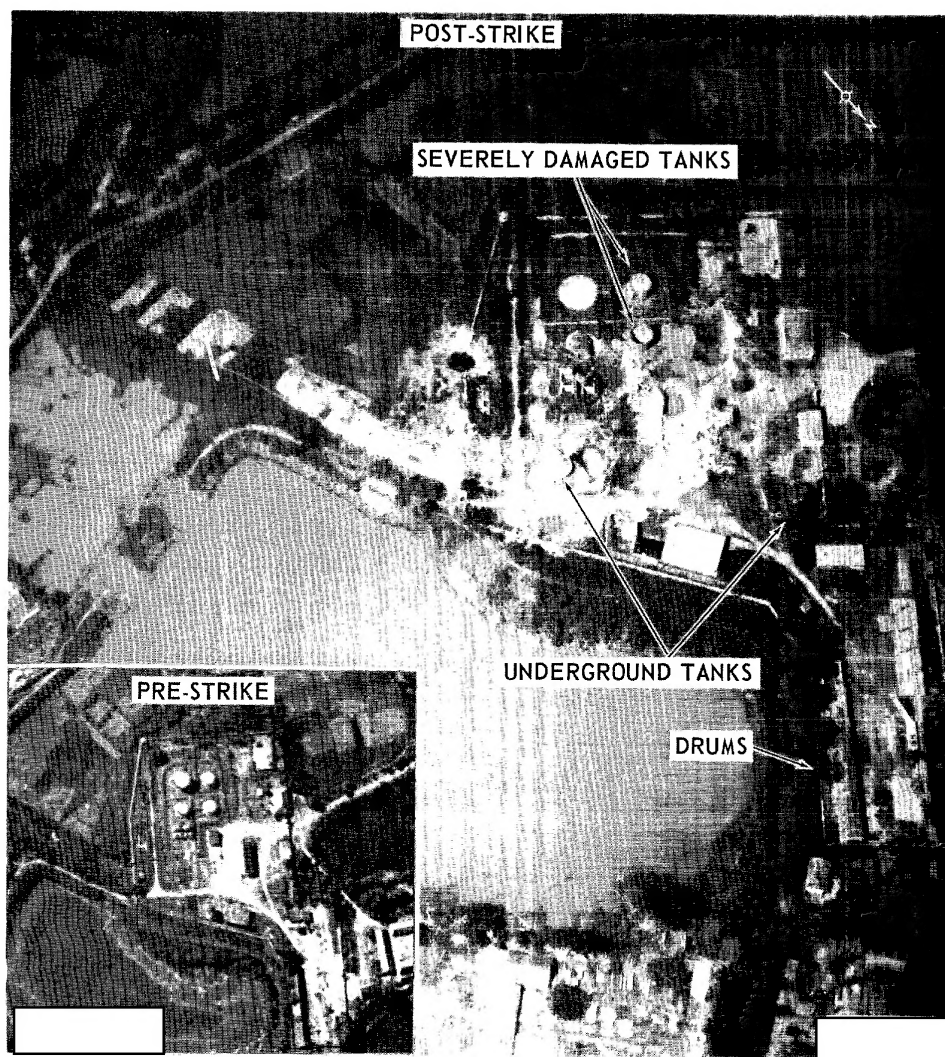
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VIET TRI PETROLEUM PRODUCTS STORAGE

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GEOGRAPHIC COORDINATES



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	WJ836482 UTM COORDINATES	2114N 10548E GEOGRAPHIC COORDINATES
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NAME: PHUC YEN AIRFIELD POL STORAGE AREA

LOCATION: 0.8 NM NORTH OF PHUC YEN AIRFIELD

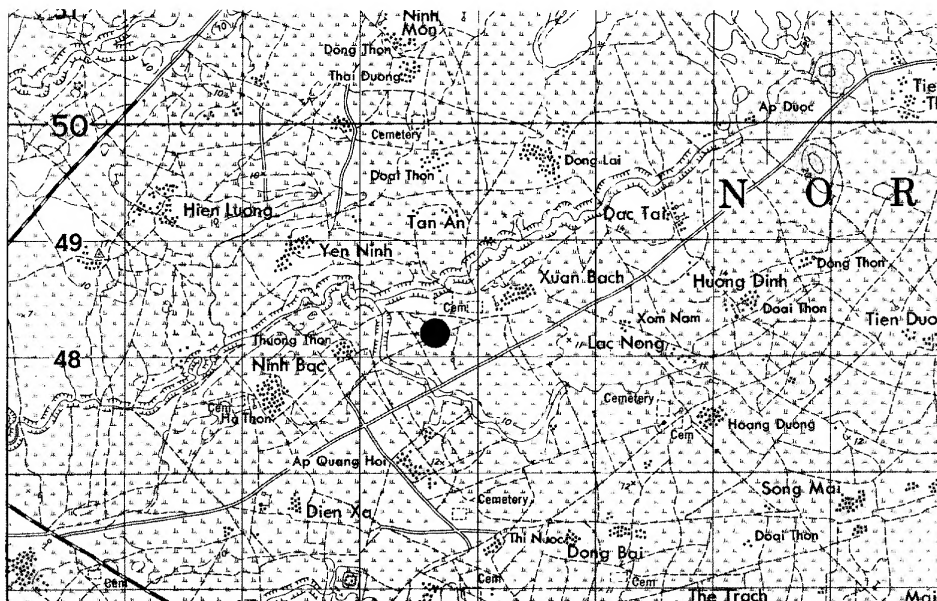
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DESCRIPTION: FACILITY CONTAINS 3 LARGE CYLINDRICAL UNDERGROUND TANKS, 3 BUNKERED PROBABLE POL TANKS, AND 7 SUPPORT BUILDINGS. AREA IS CONNECTED TO PHUC YEN AIRFIELD BY AN ALL-WEATHER ROAD.

ESTIMATED CAPACITY: TANK 4,200 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6174-I, 3D ED, DEC 59 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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DO SON PETROLEUM STORAGE

2042N 10647E
GEOGRAPHIC COORDINATES



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UTM COORDINATES

1851N 10519E
GEOGRAPHIC COORDINATES

NAME: PHU VAN POL STORAGE

LOCATION: 2.3 NM ENE OF PHU VAN

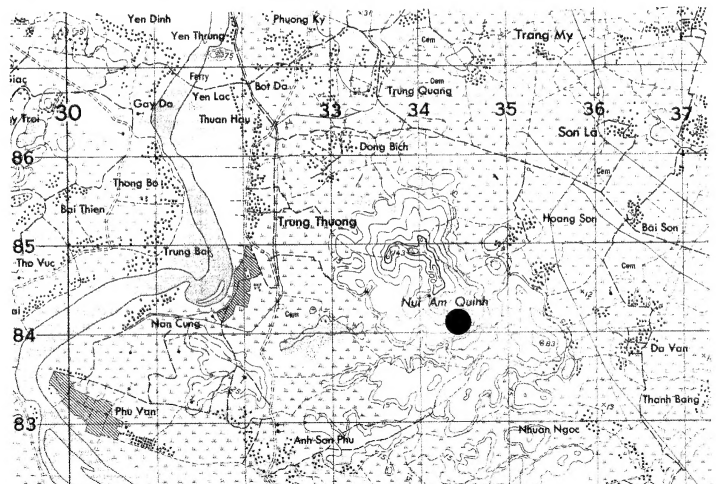
DESCRIPTION: PHOTOGRAPHY [REDACTED] REVEALS 14 BUNKERS, EACH WITH 6 POL TANKS, AND 3 TANKS OBSERVED IN EXCAVATIONS. PHOTOGRAPHY [REDACTED] REVEALS AREA ABANDONED WITH NUMEROUS CRATERS.

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ESTIMATED CAPACITY: PRE-STRIKE TANK 1,000 MT, POST-STRIKE NONE

MAP REFERENCES: AMS SERIES L701, SHEET 6067-I, 1ST ED, JAN 61 (U)
AMS SERIES JCG(G) 1501, SHEET NE 48-7, 1ST ED, JUN 65 (U)

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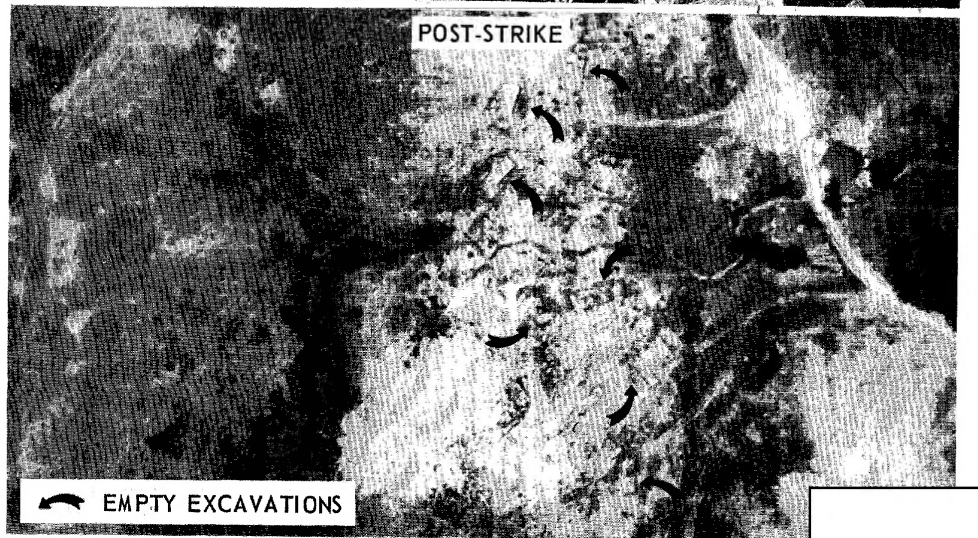
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UTM COORDINATES

PHU VAN POL STORAGE

1851N 10519E
GEOGRAPHIC COORDINATES



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VF762644
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1840N 10543E
GEOGRAPHIC COORDINATES

NAME: VINH PETROLEUM PRODUCTS STORAGE

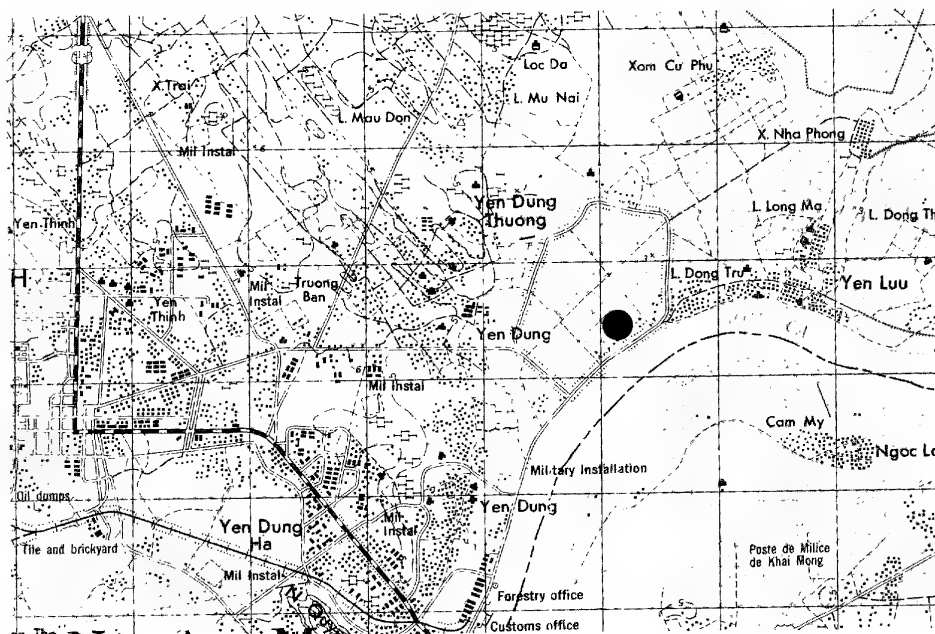
LOCATION: 2.8 NM EAST OF VINH ON NW BANK OF THE SONG CA

DESCRIPTION: PHOTOGRAPHY [REDACTED] REVEALS 3 LARGE, 5 MEDIUM, AND 6 SMALL ABOVEGROUND VERTICAL, 2 UNDERGROUND VERTICAL, AND 5 SERVICE TANKS. PHOTOGRAPHY [REDACTED] REVEALS 8 PREVIOUSLY UNOBSERVED BUNKERED HORIZONTAL AND THE 2 UNDERGROUND VERTICAL TANKS UNDAMAGED, 1 LARGE AND 1 MEDIUM TANK DAMAGED, AND 2 LARGE, 4 MEDIUM, AND 6 SMALL VERTICAL AND 5 SERVICE TANKS DESTROYED.

ESTIMATED CAPACITY: PPE-STRIKE TANK 14,325 MT (EXCLUSIVE OF 8 BUNKERED HORIZONTAL TANKS) POST-STRIKE TANK 1,600 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6146 III, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-11, 1ST ED, JUN 65 (U)

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Son La Petroleum Products Storage	B13, B14
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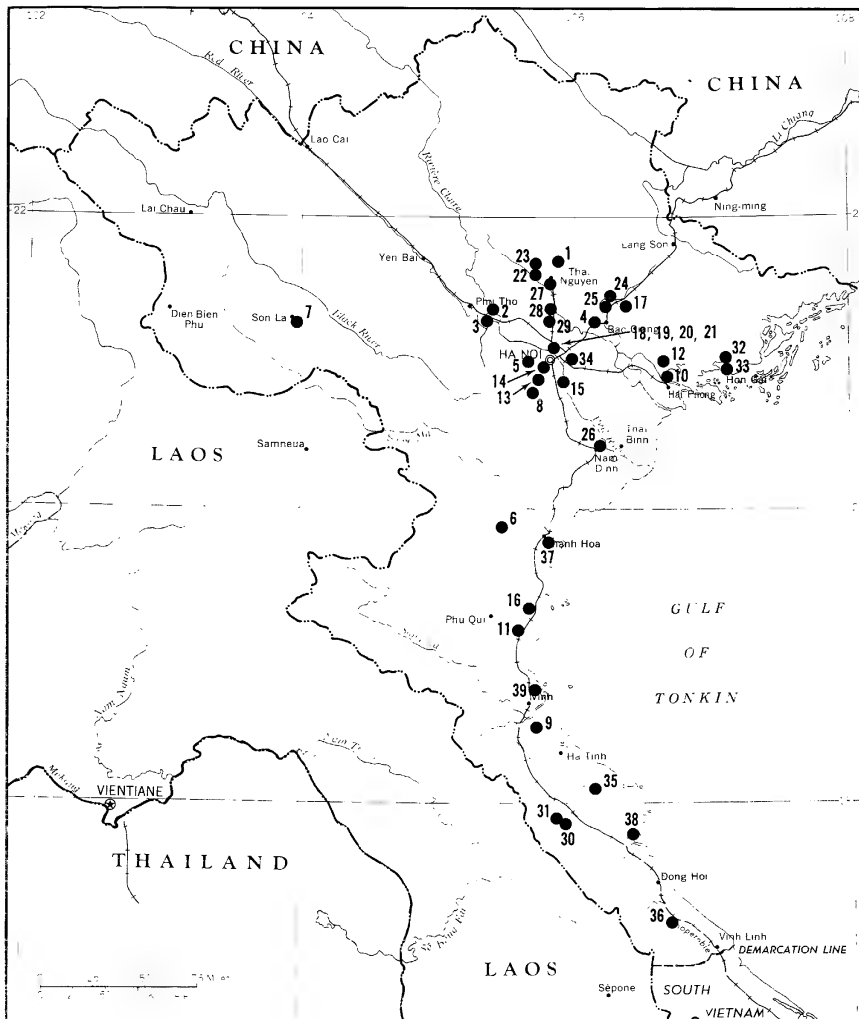
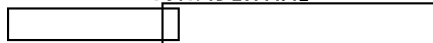
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KEY TO CATEGORY B
DISPERSED STORAGE AREAS

1. La Danh Petroleum Products Storage PUG
2. Van Lung Petroleum Products Storage UG
3. Van Lung Petroleum Products Storage West UG
4. Hoang Mai POL Storage Area
5. Ha Noi Petroleum Products Thi Cam
6. Bai Thuong Petroleum Products Storage UG Southeast
7. Son La Petroleum Products Storage
8. Thuong Thon Petroleum Products Storage UG
9. Ngoc Son Petroleum Products Storage PUG
10. Thai Lai Petroleum Products Storage
11. Yen Hau Petroleum Products Storage PUG
12. Thanh Lang Petroleum Products Storage PUG
13. Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)
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15. Bang So Petroleum Products Storage PUG
16. Son Chau Petroleum Products Storage PUG
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18. Ha Noi Petroleum Products Storage Duc Noi (Area 1)
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25. Dao Quan Petroleum Products Storage West
26. Nam Dinh Petroleum Products Storage PUG
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28. Phuc Yen Airfield POL Storage Area 1
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30. Xom Duong Quan Petroleum Products Storage UG East
31. Xom Duong Quan Petroleum Products Storage UG
32. Nui Tap Tinh POL Storage Area
33. Sac Le POL Storage Area
34. Phu Dong POL Storage Area
35. Thuan Le POL Storage Area
36. Phu Loc Petroleum Products Storage
37. Thanh Hoa POL Storage Area
38. Ba Don POL Storage Area
39. Phuc Loi Petroleum Products Storage Navy

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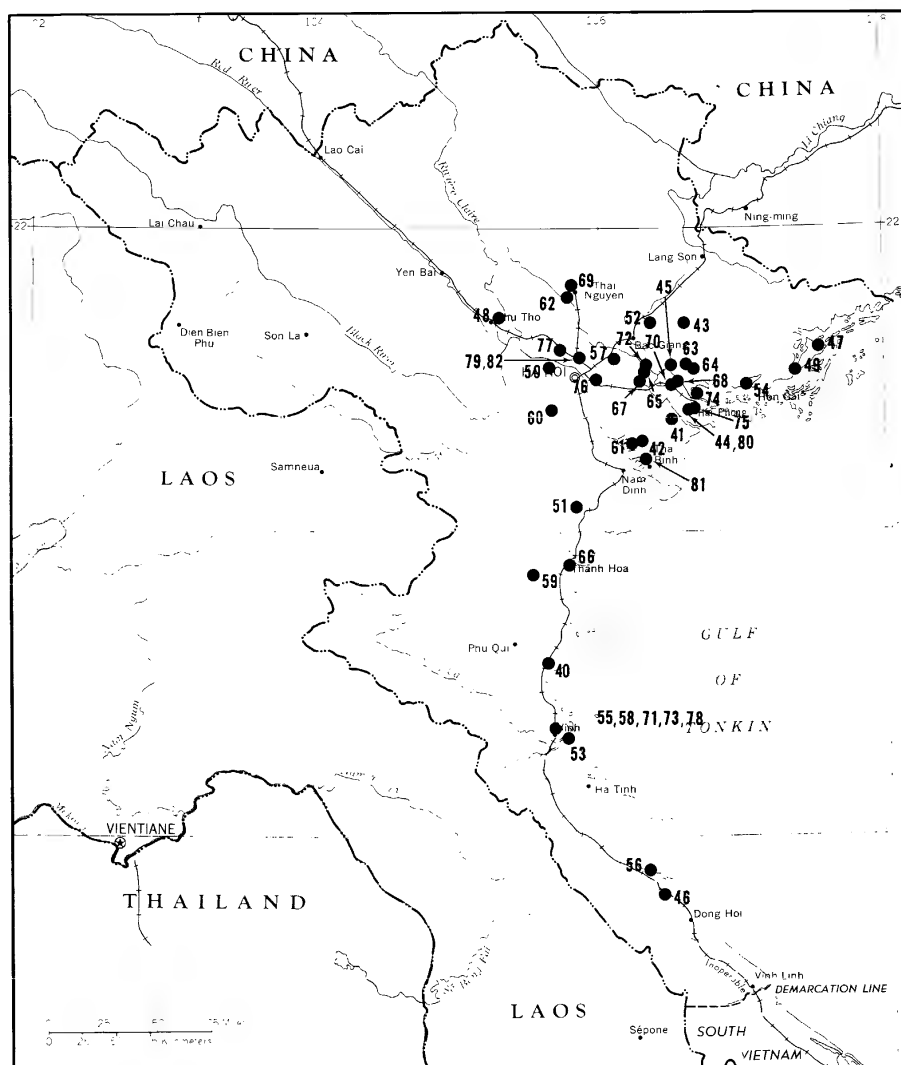
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DISPERSED STORAGE AREAS (CONTINUED)

40. Tho Trang Petroleum Products Storage
41. Ninh Giang Petroleum Products Storage
42. Viet Yen Petroleum Products Storage
43. Kep Ha Petroleum Products Storage
44. Tien Hoi Petroleum Products Storage
45. Dong Mai Petroleum Products Storage
46. Xom Lang POL Storage
47. Van Hoa POL Storage
48. Phu Lo Petroleum Products Storage NNE UG
49. Jaune Island POL Storage
50. Co Nhue Hoang POL Storage
51. Quang Suoi Petroleum Products Storage
52. Trung Phu Petroleum Products Storage
53. Gia Hoa Petroleum Products Storage PUG
54. Bai Chay Petroleum Products Storage
55. Vinh Petroleum Products Storage Yen Thinh
56. Ba Don Petroleum Products Storage UG West
57. Bac Ninh Petroleum Products Storage
58. Vinh Petroleum Products Storage PUG Xuan Yen
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60. Thuong Lam Petroleum Products Storage
61. Cau Cong Petroleum Products Storage
62. Tung Tu Petroleum Products Storage UG
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64. Quy Khe Petroleum Products Storage
65. Tran Xa Petroleum Products Storage
66. Thanh Hoa Petroleum Products Storage
67. Tram Du Petroleum Products Storage
68. Luc Nong Petroleum Products Storage
69. Thai Nguyen Petroleum Products Storage
70. Tien Nong Petroleum Products Storage
71. Vinh Petroleum Products Storage PUG Ben Thuy
72. Chi Linh Petroleum Products Storage
73. Vinh Petroleum Products Storage PUG Yen Dai
74. Hoang Pha Petroleum Products Storage
75. Kien An Petroleum Products Storage
76. Phu Thi Petroleum Products Storage
77. Phuc Yen Petroleum Products Storage
78. Vinh Petroleum Products Storage North UG
79. Mach Trang Petroleum Products Storage
80. Tram Bac Petroleum Products Storage
81. Nam Lo Petroleum Products Storage
82. Ha Noi Petroleum Products Storage Duc Noi (Area 5)

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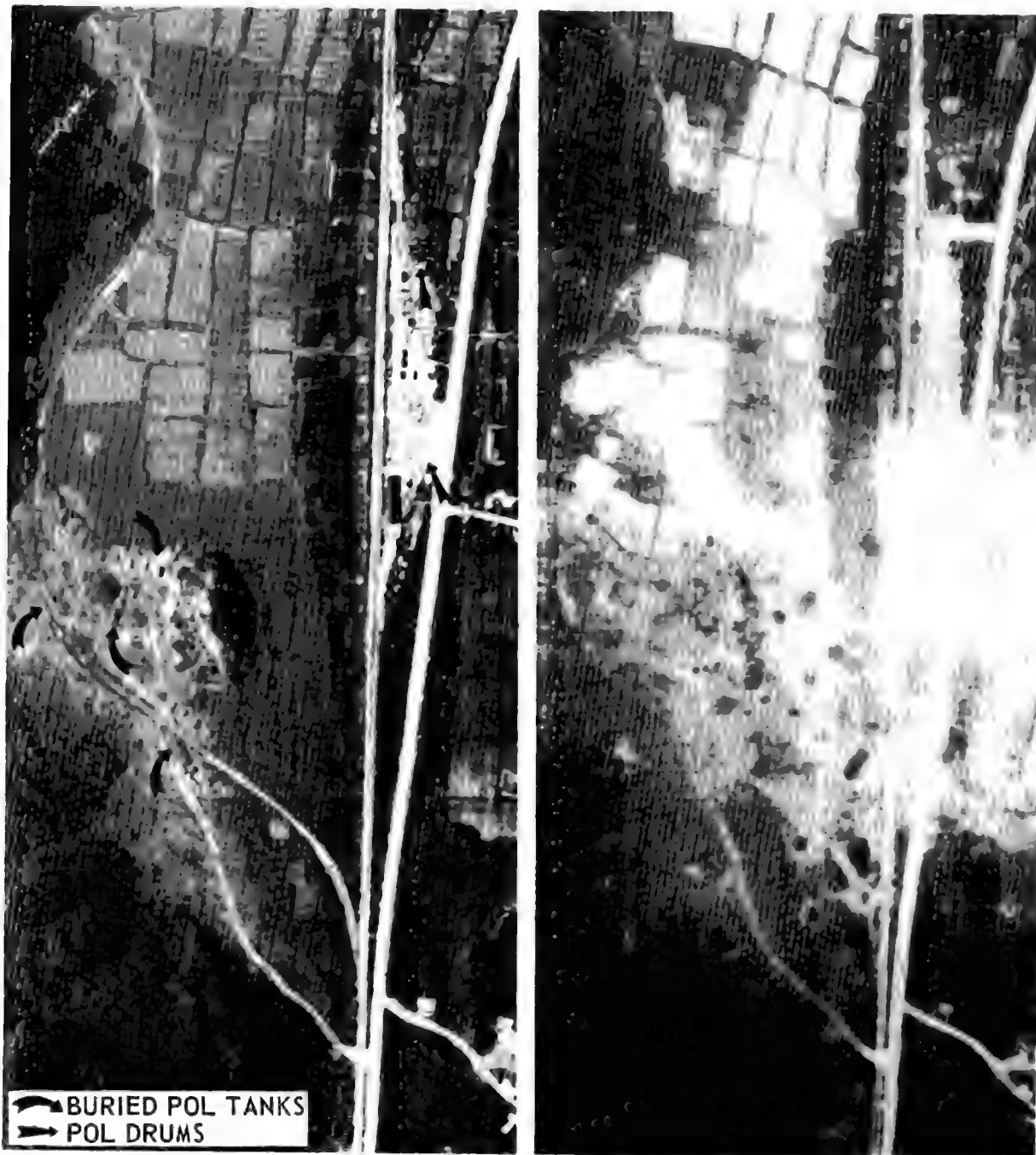
SON CHAU PETROLEUM PRODUCTS STORAGE PUG

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GEOGRAPHIC COORDINATES



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2123N 10618E
GEOGRAPHIC COORDINATES

NAME: CAN THON PETROLEUM PRODUCTS STORAGE

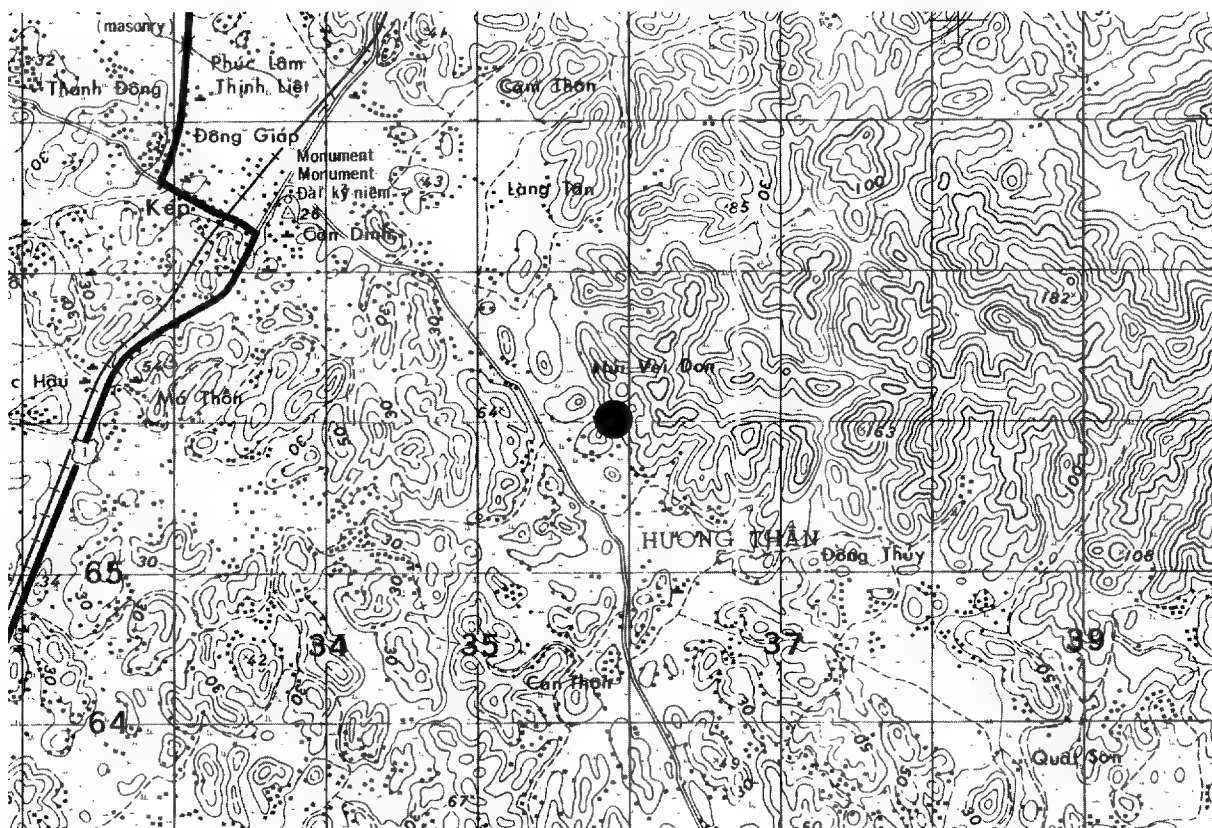
LOCATION: 0.8 NM NORTH OF CAN THON, 2.2 NM EAST OF KEP AIRFIELD, ON NE SIDE OF ROUTE 181

DESCRIPTION: FENCE-SECURED ROAD-SERVED AREA LOCATED AMONG 3 LOW HILLS CONTAINS 6 ROWS OF LARGE BUNKERED TANKS WITH A TOTAL OF 120 TANKS. TWO OF THE TANKS HAVE BEEN UNCOVERED SINCE PHOTOGRAPHY [REDACTED] AT LEAST 500 DRUMS ARE OBSERVED IN NW PART OF AREA.

ESTIMATED CAPACITY: TANK 3,000 MT DRUM 100 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6251 I, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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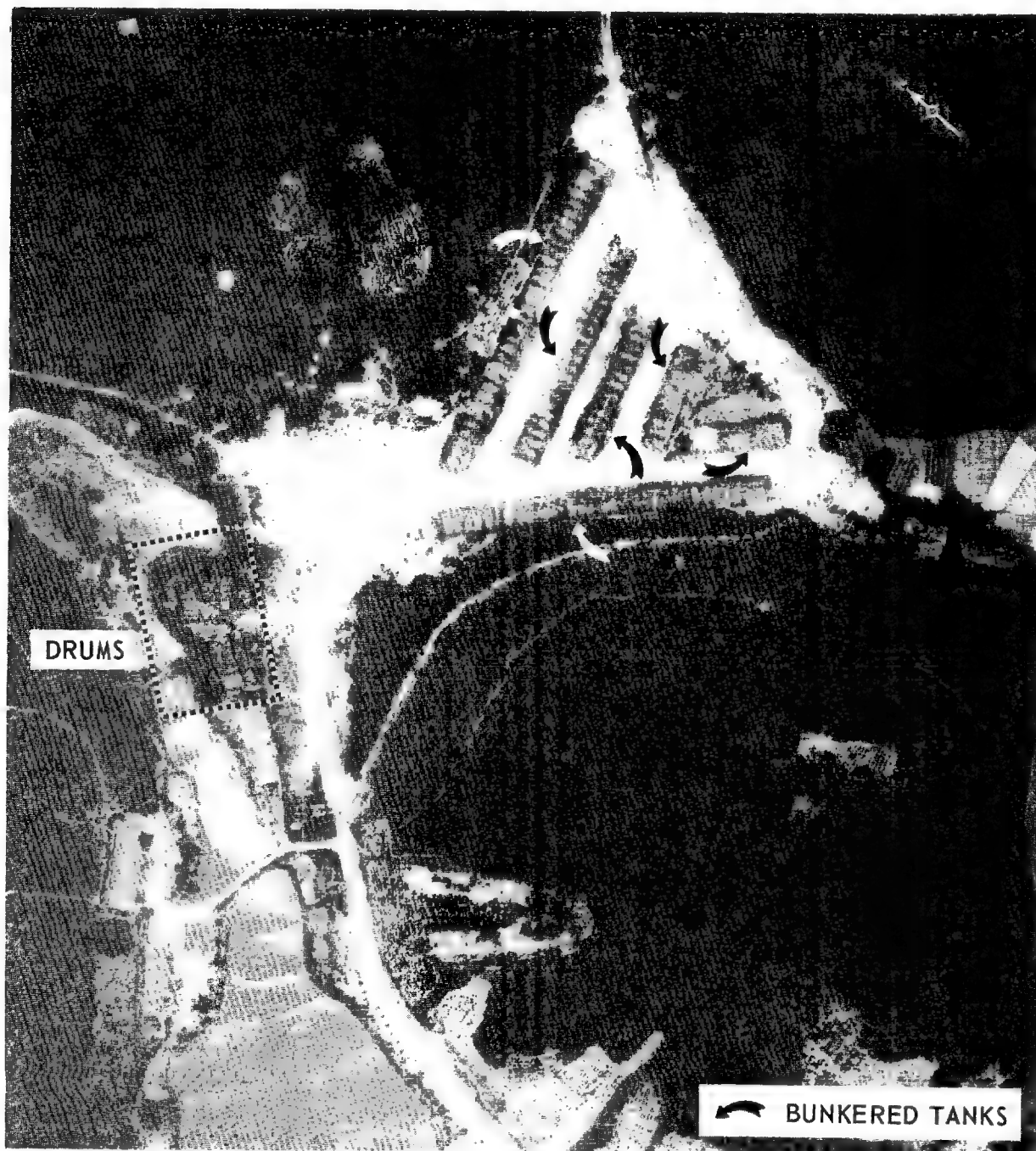
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CAN THON PETROLEUM PRODUCTS STORAGE

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UTM COORDINATES

2107N 10552E
GEOGRAPHIC COORDINATES

NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 1)

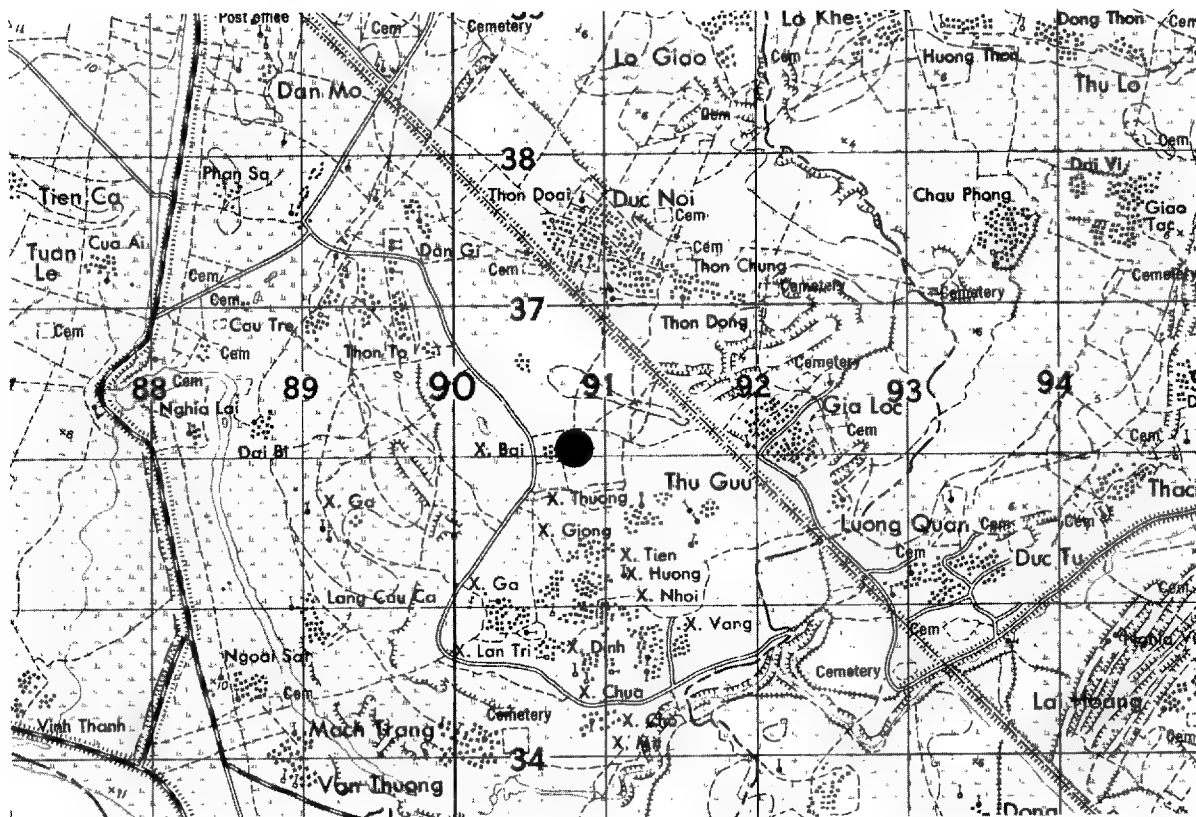
LOCATION: IMMEDIATELY EAST OF X. BAI, 0.7 NM SSW OF DUC NOI, AND 6.3 NM NORTH OF HA NOI

DESCRIPTION: AREA CONTAINS 14 LARGE BURIED TANKS, 9 PROBABLY STANDARD BURIED TANKS, 1 EXCAVATION, APPROXIMATELY 3,000 THIRTY-GAL-TYPE DRUMS, AND APPROXIMATELY 1,750 FIFTY-FIVE-GAL-TYPE DRUMS.

ESTIMATED CAPACITY: TANK 458 MT DRUM 650 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3DED, APR 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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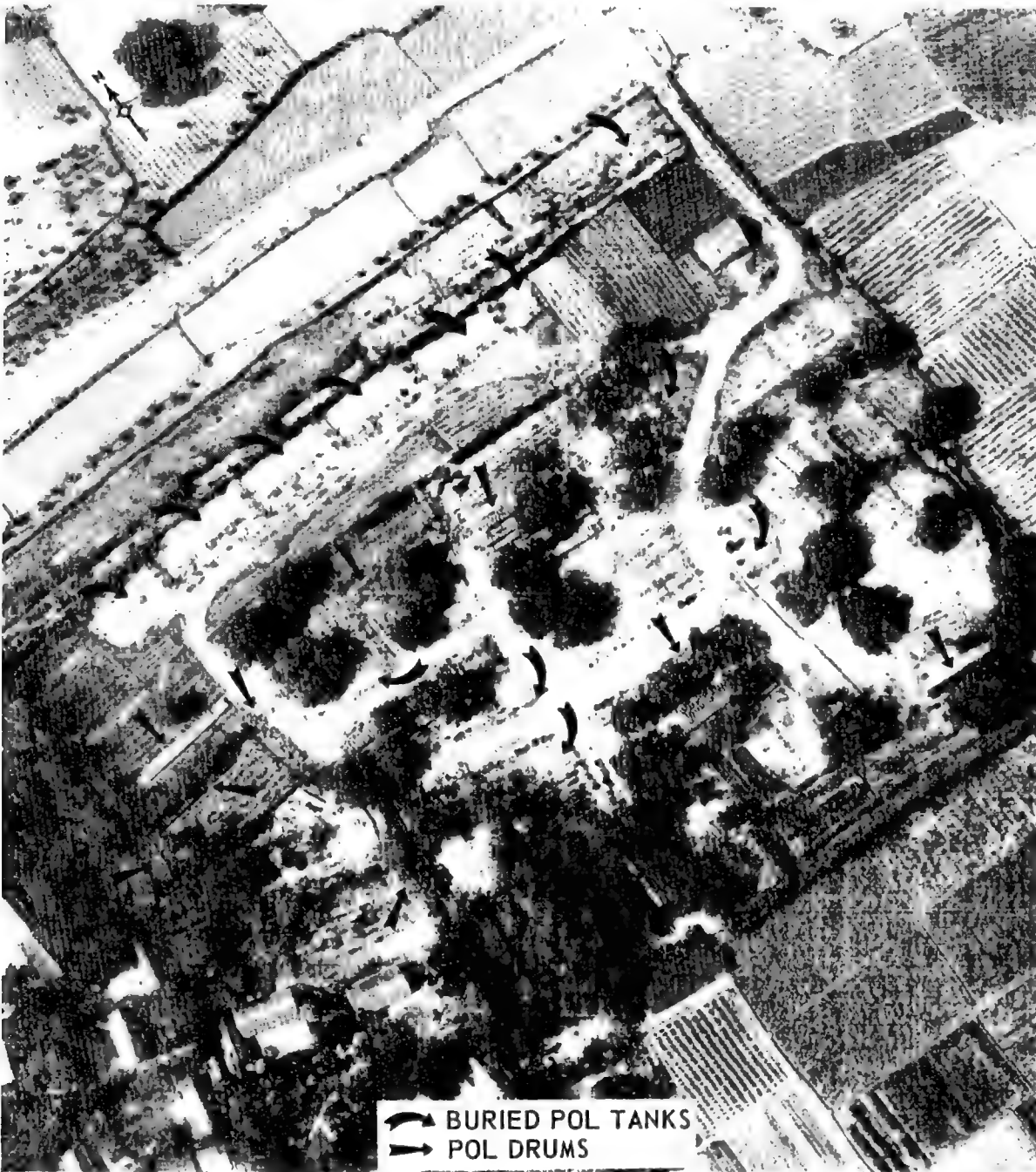
HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 1)

WJ907360

2107N 10552E

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25X1C ~~CONFIDENTIAL~~ R-218/66
Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010002-3
November 1966

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010002-3

R-218/66
September 1966

2107N 10552E
GEOGRAPHIC COORDINATES

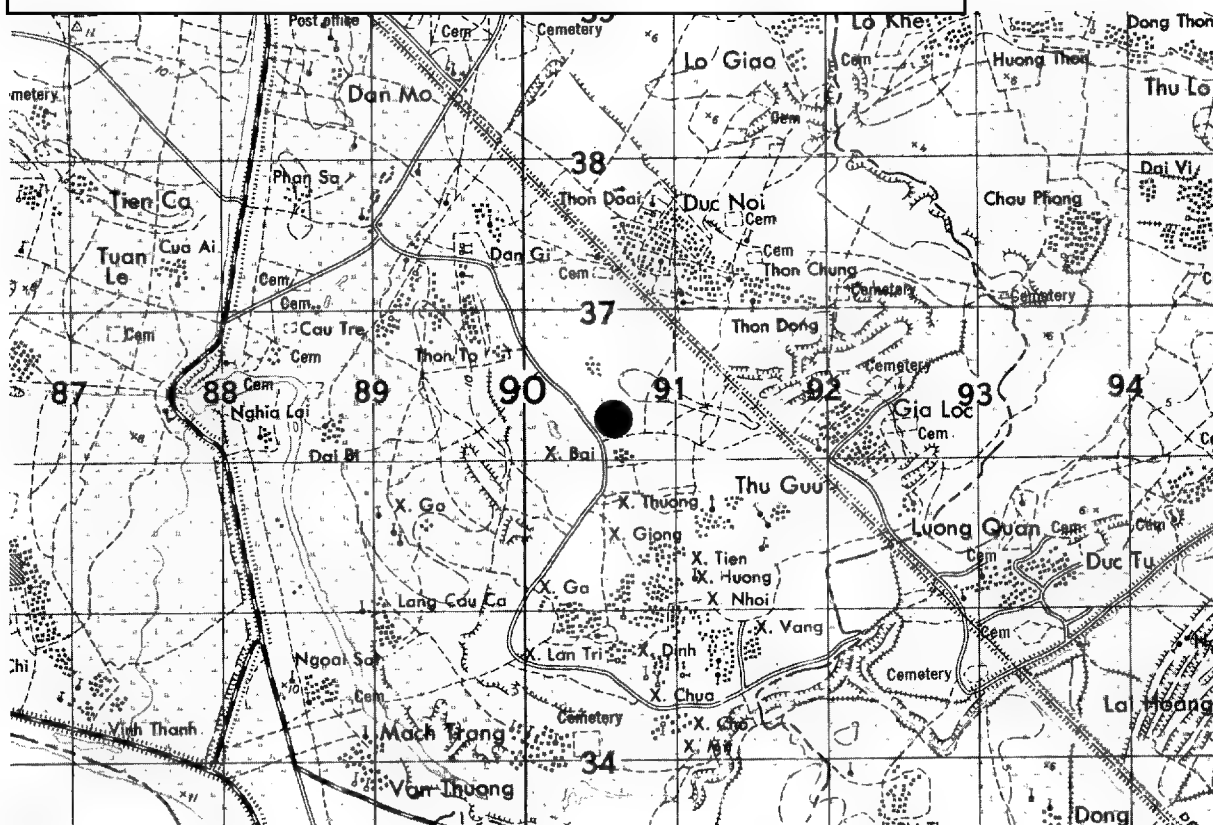
LOCATION: IMMEDIATELY NORTH OF X. BAI, 0.7 NM SSW OF DUC NOI, AND 6.4 NM NORTH OF HA NOI

DESCRIPTION: AREA, OBSERVED BEING ESTABLISHED ON PHOTOGRAPHY [REDACTED] CONTAINED 4 LARGE BURIED AND 3 LARGE UNBURIED TANKS, 11 STANDARD BURIED AND 12 STANDARD UNBURIED TANKS, AND 7 LARGE AND 6 STANDARD EXCAVATIONS. PHOTOGRAPHY [REDACTED] REVEALS 13 LARGE BURIED, 39 STANDARD BURIED, AND 8 SMALL BURIED TANKS.

ESTIMATED CAPACITY: TANK 849 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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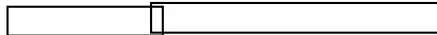
08N#1:DEALRDPT

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R-218/66
1 December 1966

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WJ906362
UTM COORDINATES

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 2)

2107N 10552E
GEOGRAPHIC COORDINATES



25X1

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E38
CONFIDENTIAL

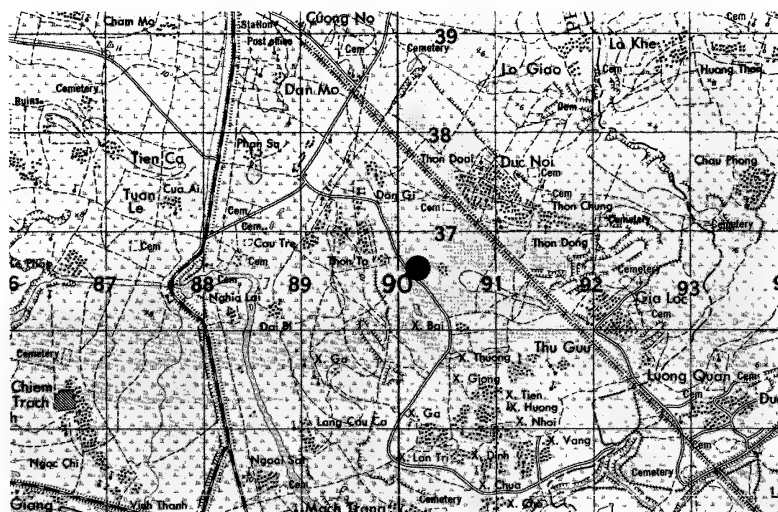
25X1

4. 2. 3. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

2107N 10552E
GEOGRAPHIC COORDINATES

LOCATION: 0.6 NM SW OF DUC NOI AND 6.6 NM NORTH OF HA NOI

ESTIMATED CAPACITY: TANK 300 MT



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R-218/66

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 3)
WJ902366

UTM COORDINATES

2107N 10552E

GEOGRAPHIC COORDINATES



25X1C

B40

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R-218/66

18 October 1966

25X1A

WJ897357
UTM COORDINATES

2107N 10551E
GEOGRAPHIC COORDINATES

NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 4)

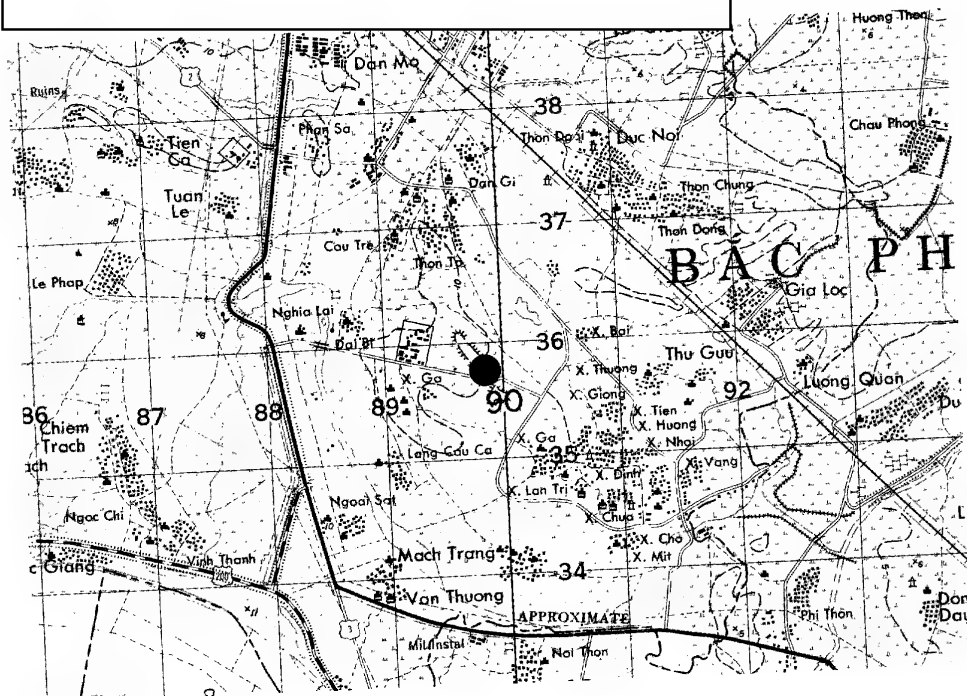
LOCATION: 1.2 NM SW OF DUC NOI AND 6.1 NM NORTH OF HA NOI

DESCRIPTION: PHOTOGRAPHY OF [REDACTED] REVEALS AT LEAST 6 BUNKERED TANKS AND 5 EXCAVATIONS ALONG TREE LINE IN SOUTH PORTION OF AREA. PHOTOGRAPHY OF [REDACTED] REVEALS AT LEAST 5 ADDITIONAL BUNKERED TANKS ALONG TREE LINE IN EAST PORTION OF AREA; AREA OF BUNKERS AND EXCAVATIONS OBSERVED ON PHOTOGRAPHY IS OBSCURED BY TREES.

ESTIMATED CAPACITY: TANK 132 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6174 II, 3D ED, APR 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



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25X1C

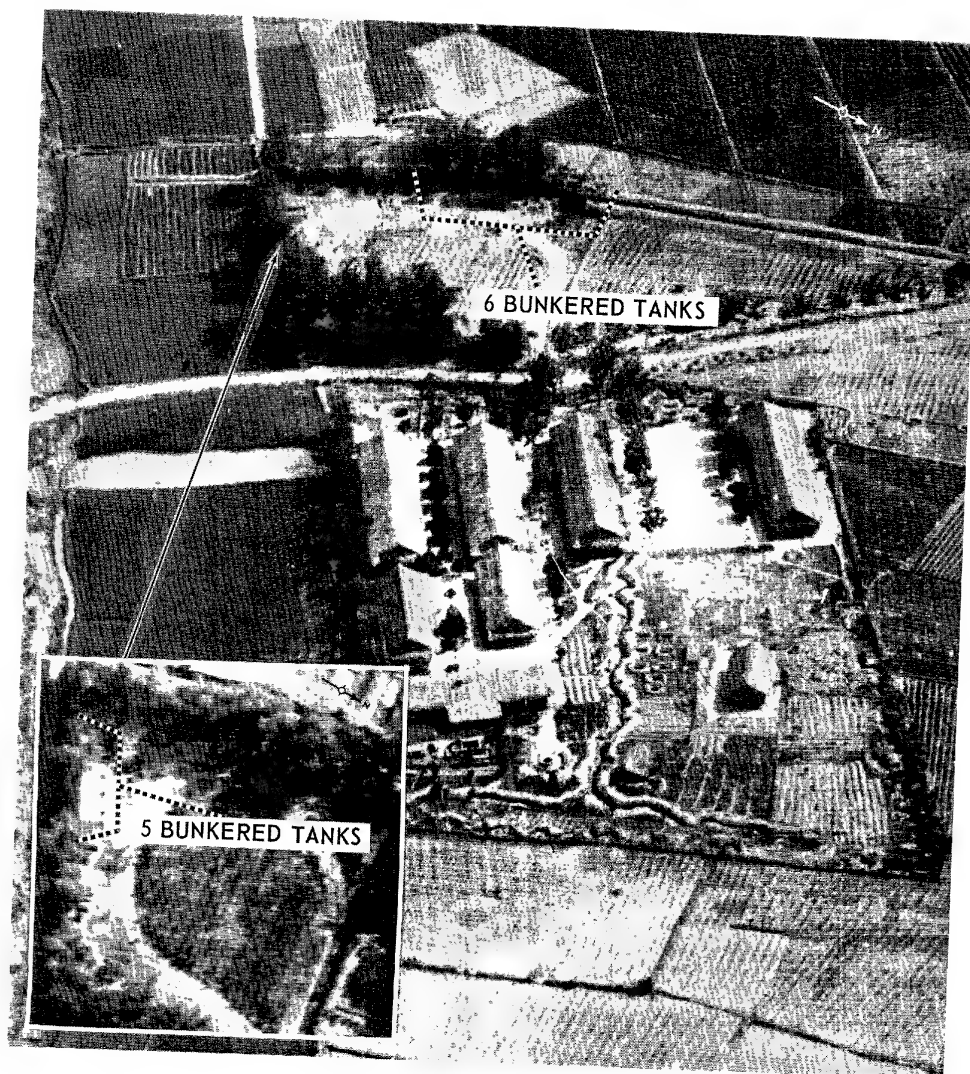
Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66
1 December 1966

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 4)
WJ897357
UTM COORDINATES

2107N 10551E
GEOGRAPHIC COORDINATES



25X1C

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25X1

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25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

R-218/66
1966

25X1A

WJ754908
UTM COORDINATES

2137N 10543E
GEOGRAPHIC COORDINATES

NAME: CU VAN PETROLEUM PRODUCTS STORAGE

LOCATION: 125X1D OF CU VAN AND 7.1 NM NW OF THAI NGUYEN

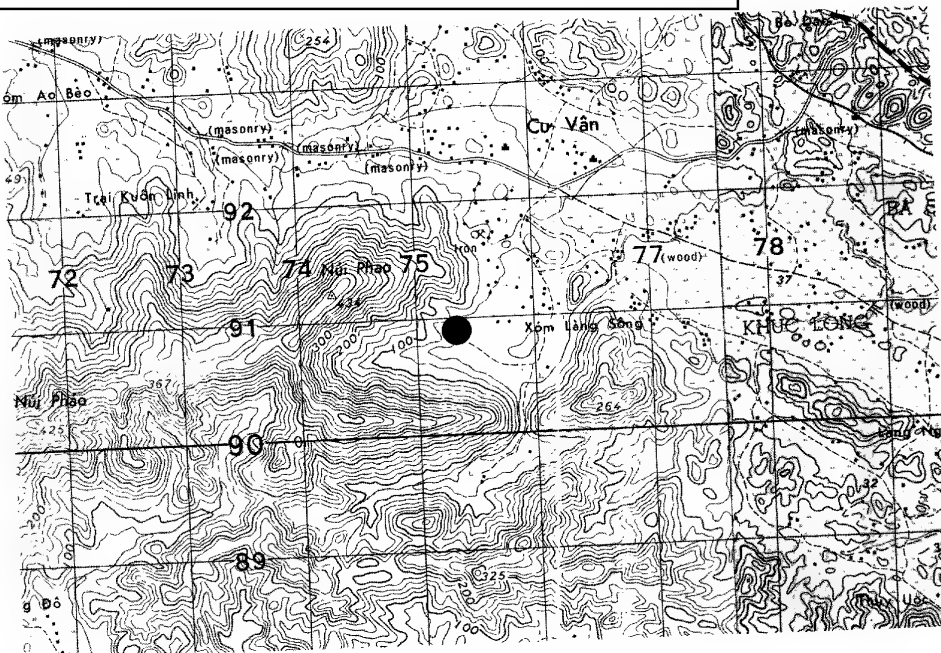
DESCRIPTION: 94 LARGE BUNKERED TANKS ALONG
LOOP ROAD. A PROBABLE LINK OF HOISING USED IN FUEL TRANSFER IS ALSO OBSERVED.
CRATERS IN 3 AREAS WITH 7 TANKS DESTROYED.

25X1D

ESTIMATED CAPACITY: PRE-STRIKE TANK 2,350 MT POST-STRIKE TANK 2,175 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6175 IV, 1ST ED, SEP 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D

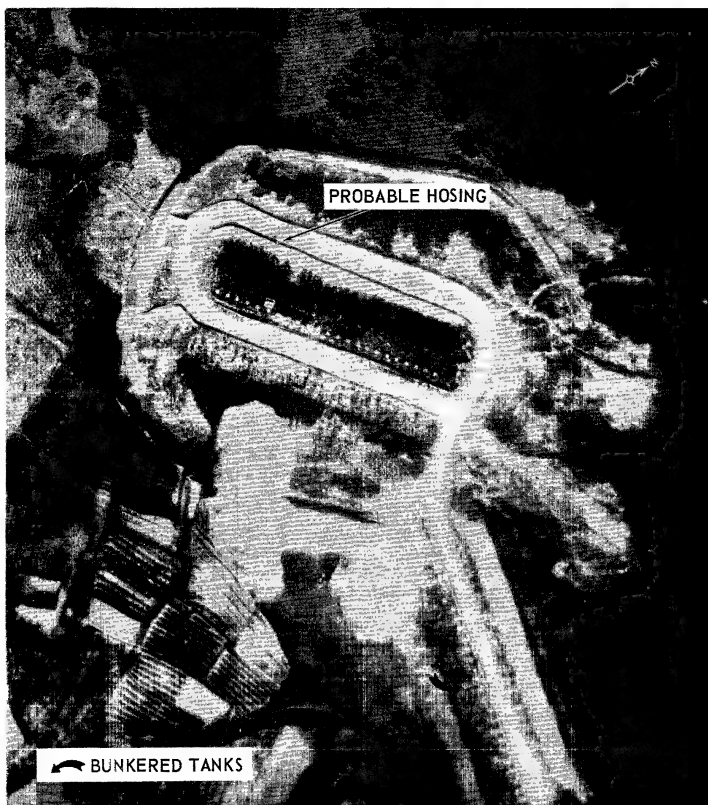


25X1

WJ754908
UTM COORDINATES

CU VAN PETROLEUM PRODUCTS STORAGE

2137N 10543E
GEOGRAPHIC COORDINATES



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R-218-66
1 December 1966

25X1

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| | WJ774926
UTM COORDINATES | 2138N 10544E
GEOGRAPHIC COORDINATES |
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NAME: CU VAN PETROLEUM PRODUCTS STORAGE EAST UG

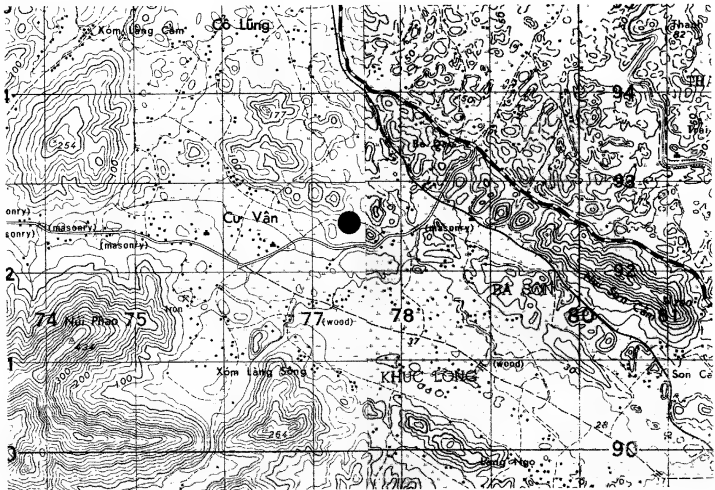
LOCATION: 0.6 NM EAST OF CU VAN AND 6.2 NM NW OF THAI NGUYEN

DESCRIPTION: AREA CONTAINS 52 LARGE BUNKERED TANKS ALONG A 0.2 NM
SEGMENT OF A SECONDARY ROAD NORTH OF ROUTE 13A.

ESTIMATED CAPACITY: TANK 1,300 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6175-IV, 1ST ED, SEP 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C

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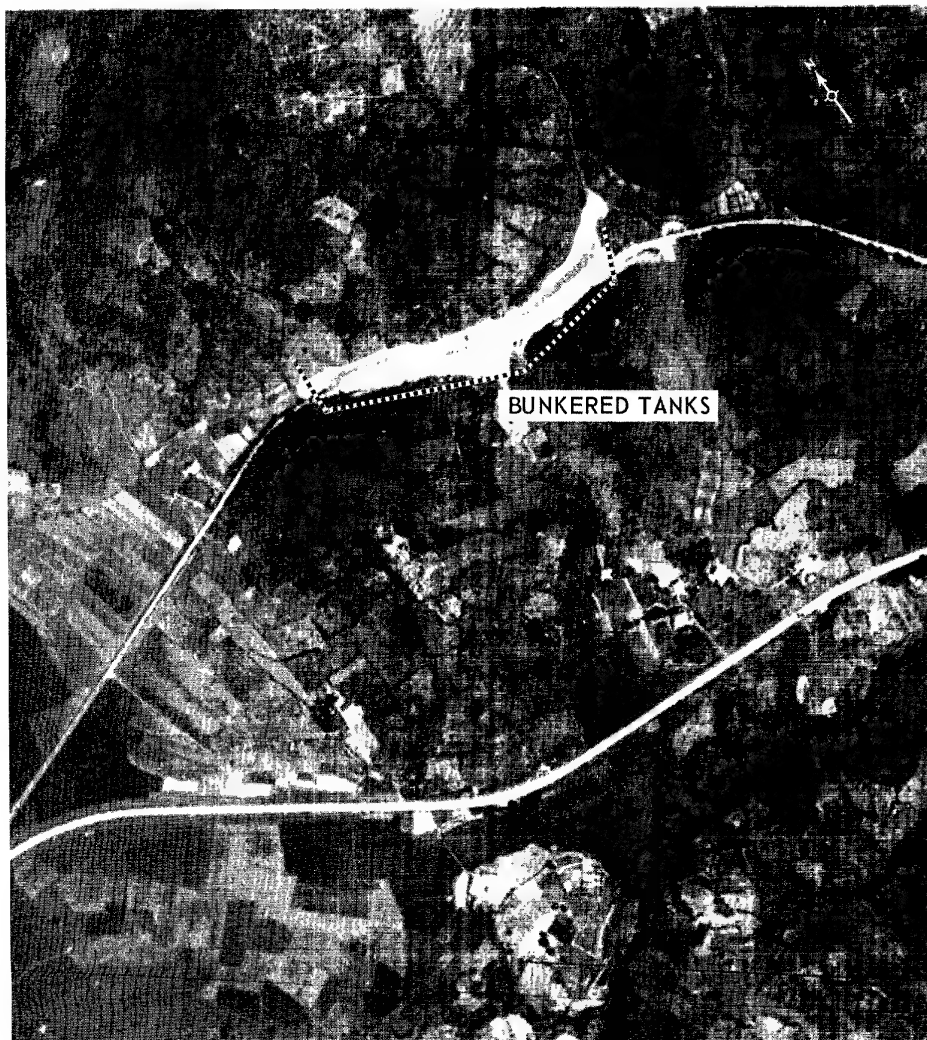
25X1

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25X1C For Release 2003/08/04 CIA-RDP78B04560A005500010032-3 R-218/66
number 1966

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CU VAN PETROLEUM PRODUCTS STORAGE EAST UG
WJ774926 2138N 10544E
UTM COORDINATES GEOGRAPHIC COORDINATES



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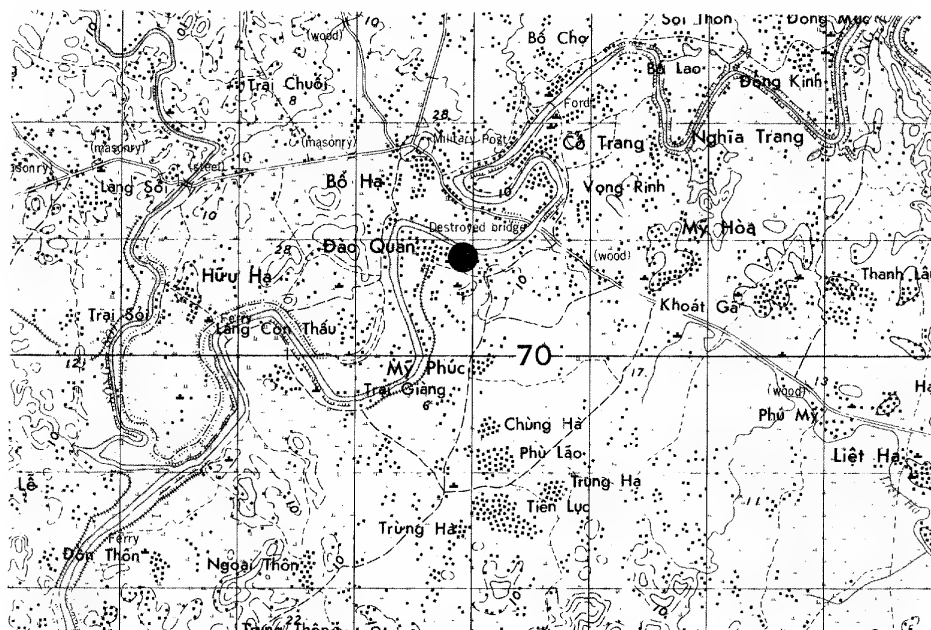
XJ249708
UTM COORDINATES

2126N 10612E
GEOGRAPHIC COORDINATES

LOCATION: 0.1 NM EAST OF DAO QUAN ON SOUTH BANK OF SONG THUONG (RIVER)

[REDACTED] CONSISTS OF 28 BURIED TANKS, 6 CAMOUFLAGED ABOVEGROUND TANKS, 3 TANKS VISIBLE IN EXCAVATIONS, AND 1 OPEN EXCAVATION.

MAP REFERENCES: AMS SERIES L701, SHEET 6275 III, 1ST ED, APR 64 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)



25X1C

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304 DEMTRAP7

25X1

25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66

BA DON POL STORAGE AREA

XE526634
UTM COORDINATES

1745N 10626E
GEOGRAPHIC COORDINATES



25X1C

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25X1

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R-218/66
1 December 1966

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| WF786702 | 1843N 10544E |
| UTM COORDINATES | GEOGRAPHIC COORDINATES |

MAP REFERENCES: AMS SERIES L7014, SHEET 6167 III, 1ST ED, DEC 60 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-7, 1ST ED, JUN 65 (U)

B77

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25X1

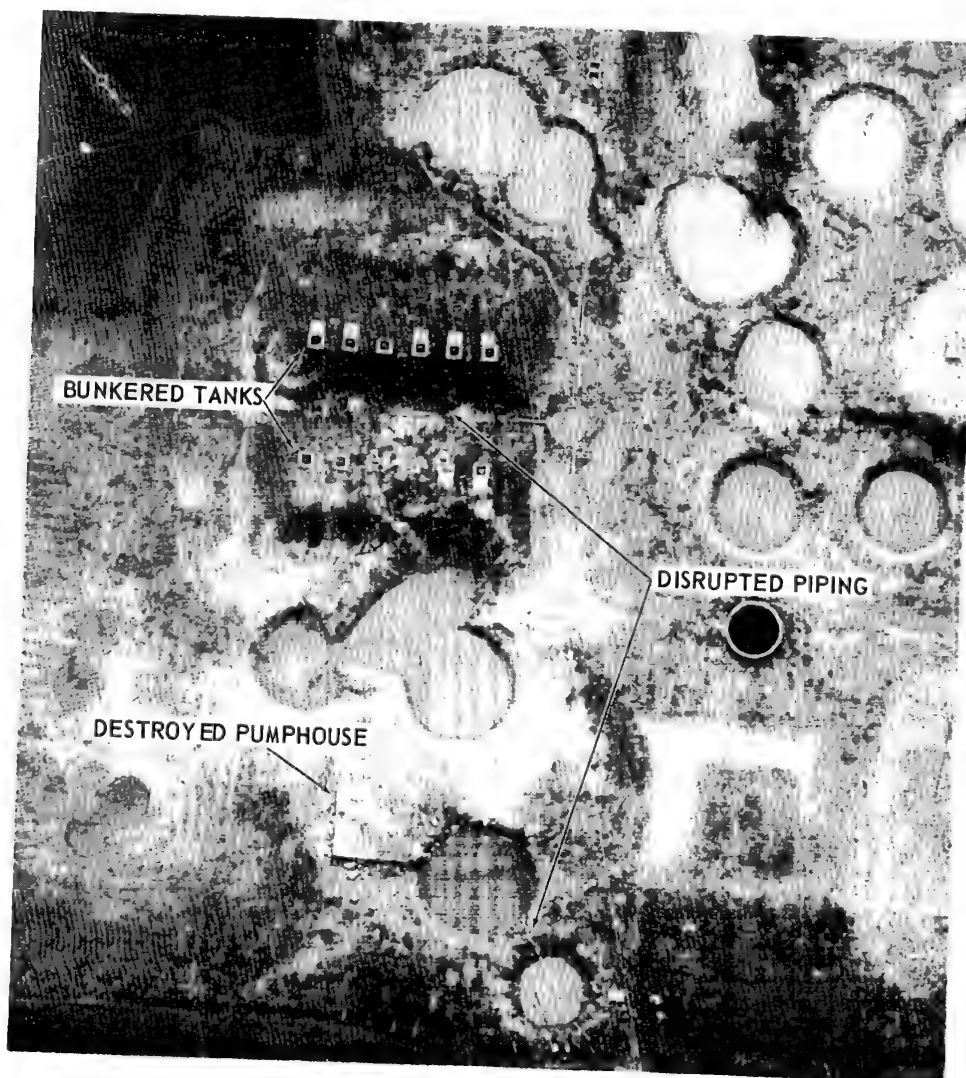
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25X1C **CONFIDENTIAL**
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R-218/66
1 December 1966

PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY
WF786702
UTM COORDINATES

1843N 10544E
GEOGRAPHIC COORDINATES



25X1

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25X1

25X10 Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66

25X1A

WG661179
UTM COORDINATES

1J39N 10537E
GEOGRAPHIC COORDINATES

NAME: THO TRANG PETROLEUM PRODUCTS STORAGE

LOCATION: 0.5 NM EAST OF THO TRANG, ADJACENT TO THE THANH HOA/VIENH RAIL LINE

DESCRIPTION: PHOTOGRAPHY [REDACTED] REVEALS 6 BURIED TANKS (POSSIBLY ABANDONED) ON EAST SIDE OF RAIL LINE AND 18 BUNKERED TANKS ALONG A LOOP ROAD WEST OF RAIL LINE. PHOTOGRAPHY [REDACTED] REVEALS 4 OF THE BUNKERED TANKS IN THE WEST AREA DESTROYED AND 3 POSSIBLY DAMAGED. APPROXIMATELY 50 DRUMS ARE OBSERVED.

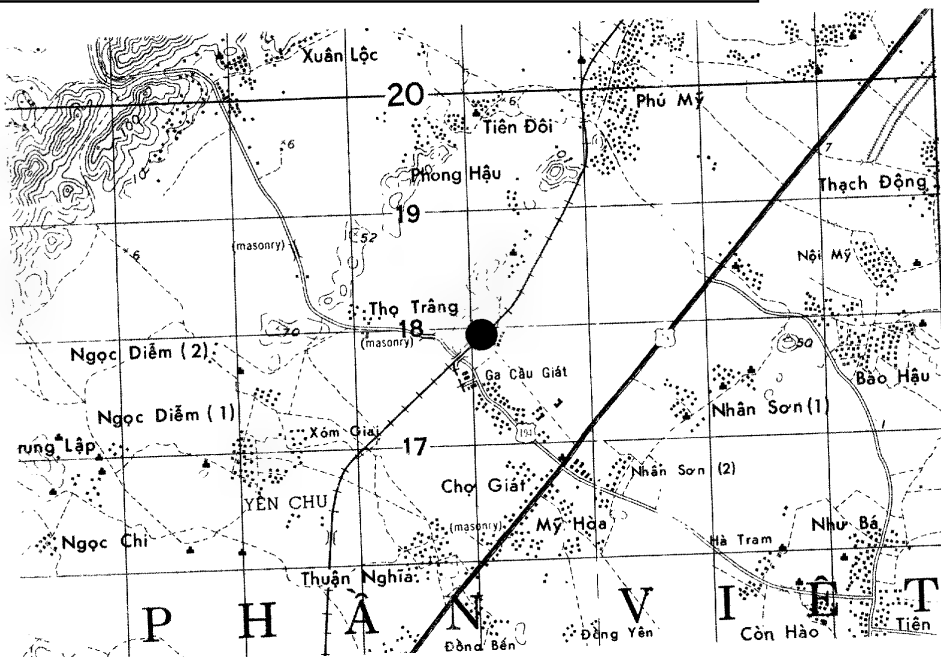
ESTIMATED CAPACITY: PRE-STRIKE TANK 288 MT, POST-STRIKE TANK 240 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6147 III, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-3, 1ST ED, JUN 65 (U)

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25X1D



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R-218/66

1 December 1966

25X1A

THO TRANG PETROLEUM PRODUCTS STORAGE

1909N 10537E

UTM COORDINATES

GEOGRAPHIC COORDINATES



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R-218/66

25X1A

XH592964
UTM COORDINATES

2045N 10631E
GEOGRAPHIC COORDINATES

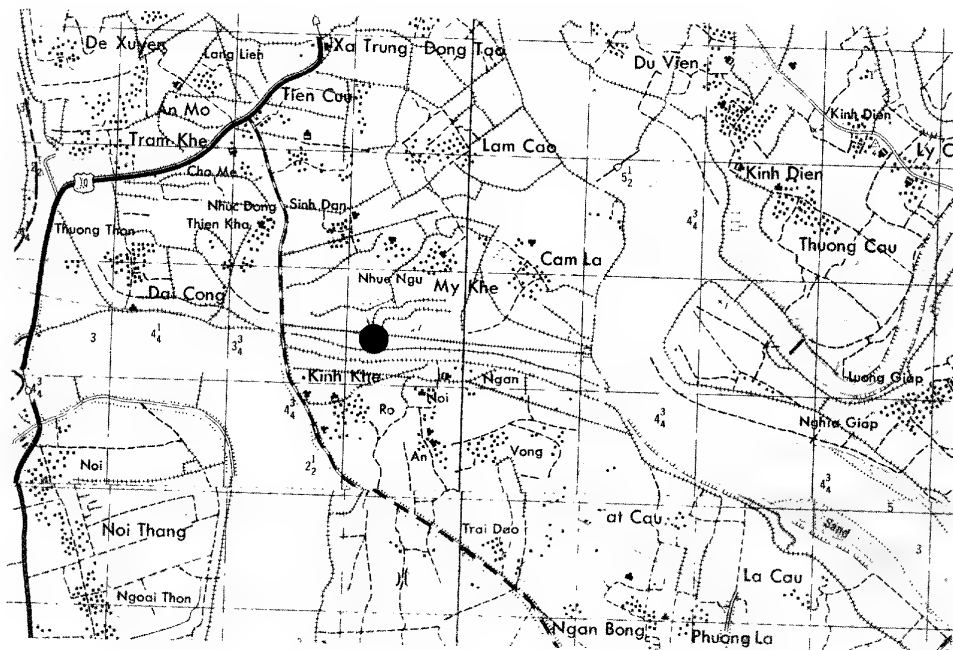
NAME: NINH GIANG PETROLEUM PRODUCTS STORAGE

LOCATION: 7.3 NM ENE OF NINH GIANG AND 10.8 NM SW OF HAI PHONG

DESCRIPTION: AREA CONSISTS OF AT LEAST 13 PARTIALLY BURIED AND 14 BURIED POL TANKS ALONG THE NORTH BANK OF AN UNNAMED CANAL CONNECTING THE SONG VAN UC (RIVER) WITH THE SONG THAI BINH (RIVER). AREA IS SERVED BY A DRY-WEATHER ROAD.

ESTIMATED CAPACITY: PRE-STRIKE TANK 324 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 635C IV, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED, JUN 65 (U)



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R-118/66

10 NOVEMBER 1966

WJ733457
UTM COORDINATES

PHUC YEN PETROLEUM PRODUCTS STORAGE

2112N 10542E

GEOGRAPHIC COORDINATES



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R-218/66

December 1966

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| | WF/19695
UTM COORDINATES | 184311 10540E
GEOGRAPHIC COORDINATES |
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NAME: VINH PETROLEUM PRODUCTS STORAGE NORTH UG

LOCATION: 0.8 NM WEST OF DONG HAM, 1 NM SSE OF VINH AIRFIELD, AND 3 NM NORTH OF VINH

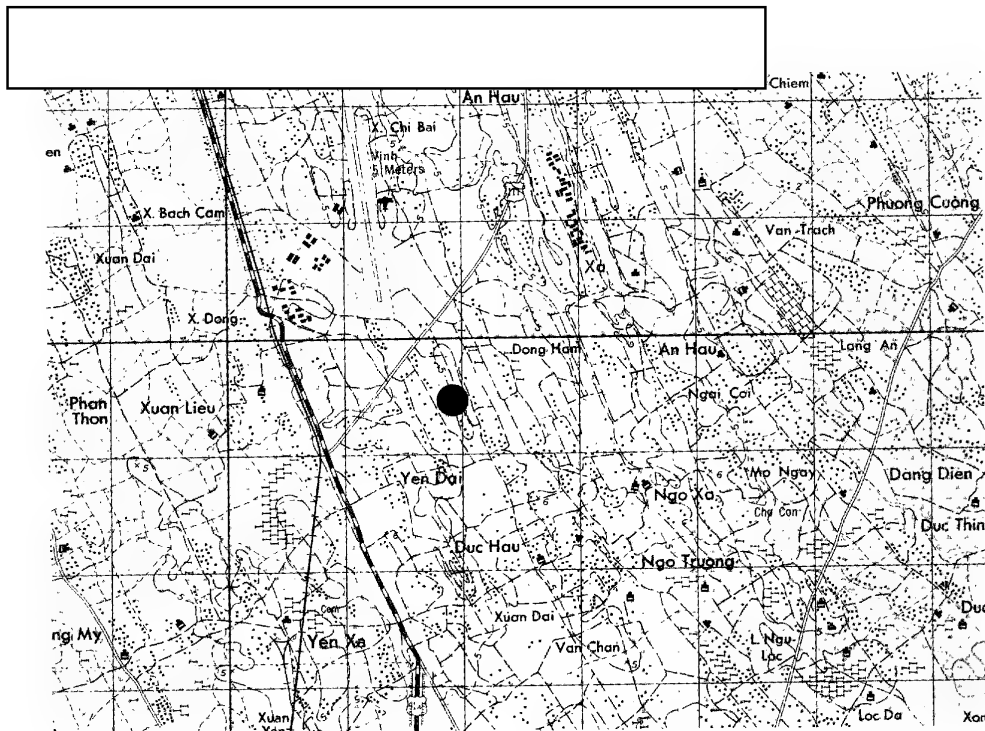
DESCRIPTION: AREA CONTAINS 8 WIDELY DISPERSED BUNKERED TANKS ALONG TREE LINES.

ESTIMATED CAPACITY: TANK 36 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6146 III, 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET 48-7, 1ST ED, JUN 65 (U)

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Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

25X1C

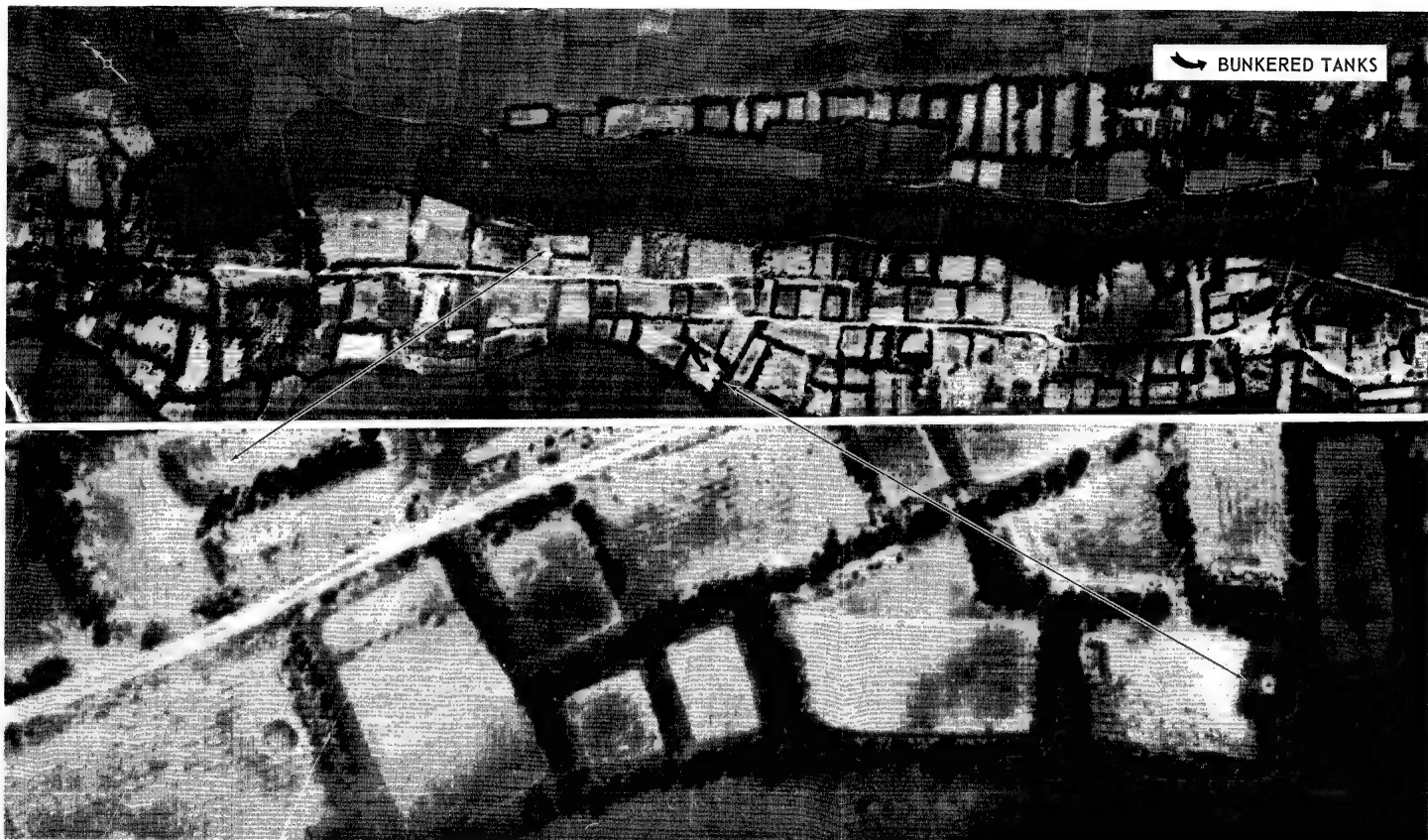
CONFIDENTIAL

R-218/66
1 December 1966

WF719695
UTM COORDINATES

VINH PETROLEUM PRODUCTS STORAGE NORTH UG

1843N 10540E
GEOGRAPHIC COORDINATES



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R-218 66
1 December 1966

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WJ899346
UTM COORDINATES

2106N 10551E
GEOGRAPHIC COORDINATES

NAME: MACH TRANG PETROLEUM PRODUCTS STORAGE

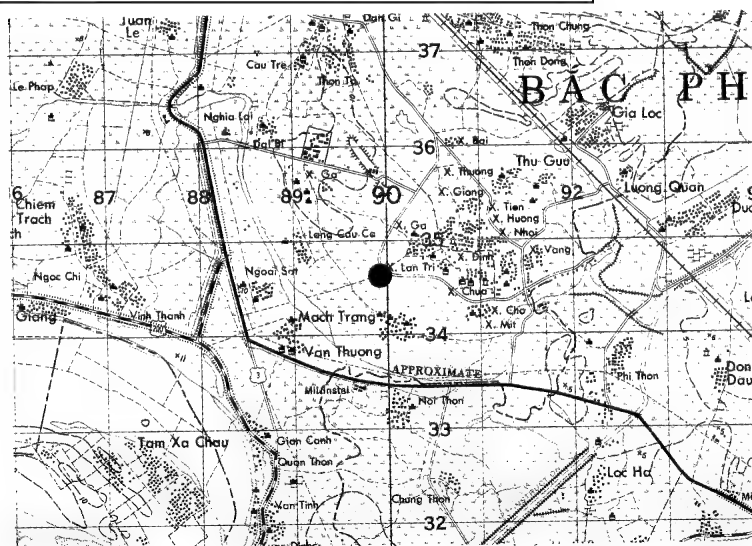
LOCATION: 0.3 NM NORTH OF MACH TRANG AND 2.1 NM NNE OF RED RIVER

DESCRIPTION: ROAD-SERVED AREA CONSISTS OF 4 LARGE AND 1 STANDARD-SIZE BUNKERED TANK.

ESTIMATED CAPACITY: TANK 112 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1964 (U)
AMS SERIES JCG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66

December 1966

WJ899346 MACH TRANG PETROLEUM PRODUCTS STORAGE
UTM COORDINATES

2106N 10551E
GEOGRAPHIC COORDINATES



➔ BUNKERED TANKS

25X1

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25X1

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

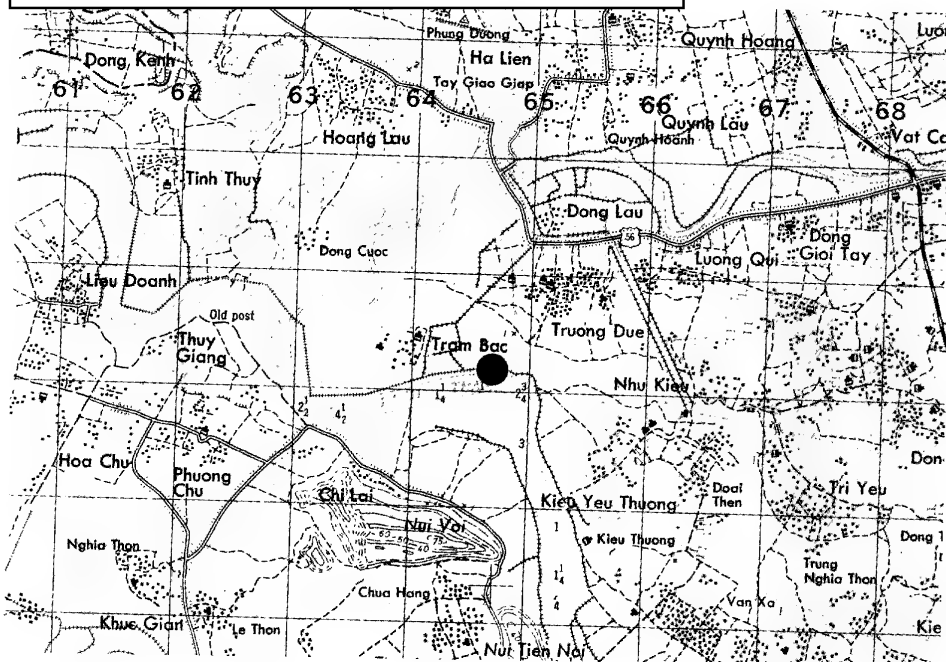
R-218/66
1 December 1966

CONFIDENTIAL

0616-
BE NUMBERXJ646062
UTM COORDINATES2051N 10635E
GEOGRAPHIC COORDINATES**NAME:** TRAM BAC PETROLEUM PRODUCTS STORAGE**LOCATION:** 0.4 NM ESE OF TRAM BAC, 5.7 NM WEST OF HAI PHONG, ON NORTH BANK OF THE LACH TRAY**DESCRIPTION:** FENCE-SECURED, WATER-SERVED AREA CONSISTS OF 25 BUNKERS CONTAINING A TOTAL OF 50 LARGE TANKS. A POSSIBLE TANK IS IN THE WEST CORNER OF AREA.**ESTIMATED CAPACITY:** TANK 1,275 MT**MAP REFERENCES:** AMS SERIES L7014, SHEET 6350 IV, 1ST ED, 1965 (U)

25X1D

AMS SERIES JOG(G) 1501, SHEET 48-16, 1ST ED, JUN 65 (U)



B159

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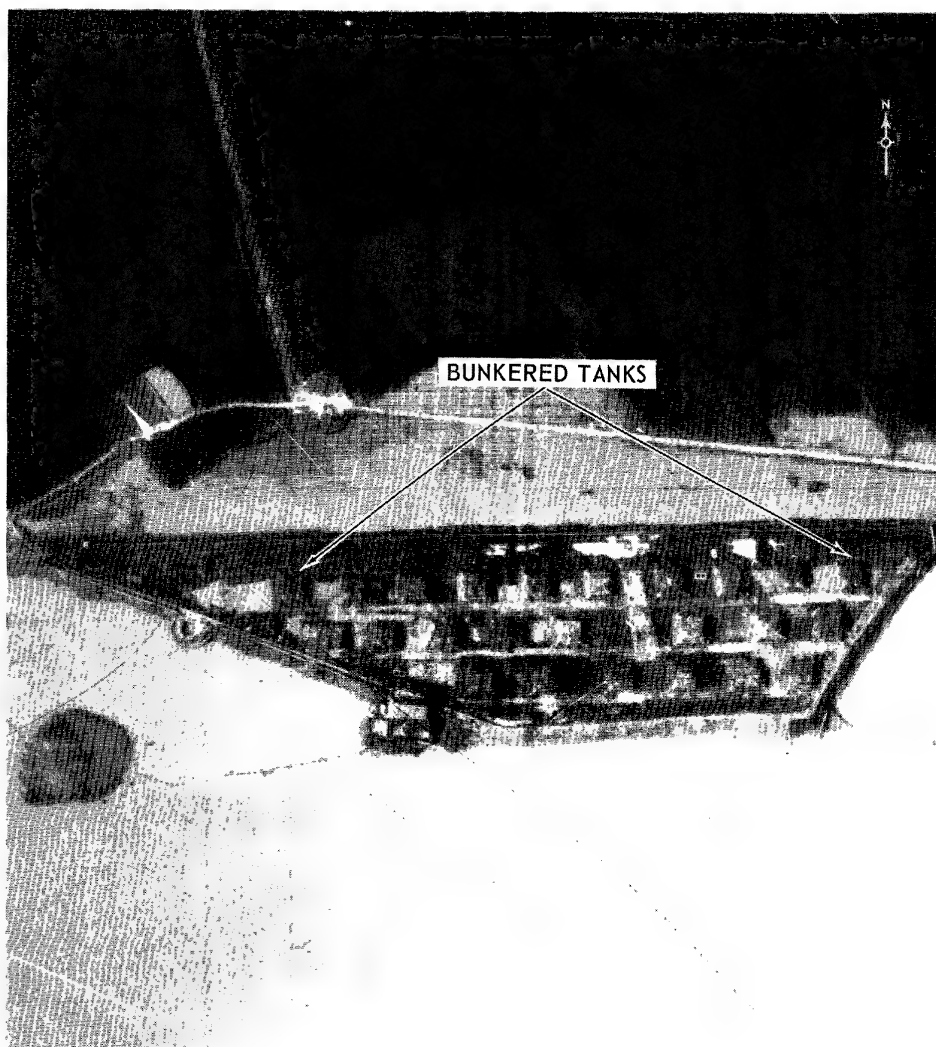
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ber 1966

TRAM BAC PETROLEUM PRODUCTS STORAGE
XJ646062 2051N 10635E
UTM COORDINATES GEOGRAPHIC COORDINATES



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R-218/66
25X1C [REDACTED] December 1966

0616-
BE NUMBER

XH350718
UTM COORDINATES

2032N 10617E
GEOGRAPHIC COORDINATES

NAME: NAM LO PETROLEUM PRODUCTS STORAGE

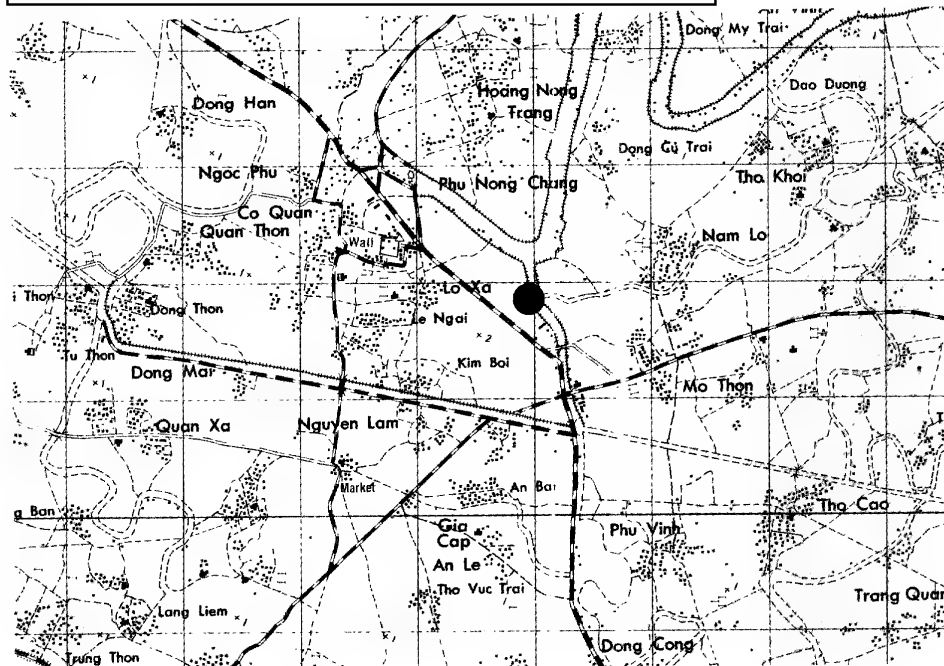
LOCATION: 0.6 NM WEST OF NAM LO AND 6 NM NNW OF THAI BINH

DESCRIPTION: WATER-AND ROAD-SERVED AREA CONTAINS 5 EARTHEN BUNKERS
EACH WITH 8 TANKS FOR A TOTAL OF 40 LARGE TANKS.

ESTIMATED CAPACITY: TANK 1,000 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6250 II, 1ST ED, 1965 (U)
AMS SERIES JCG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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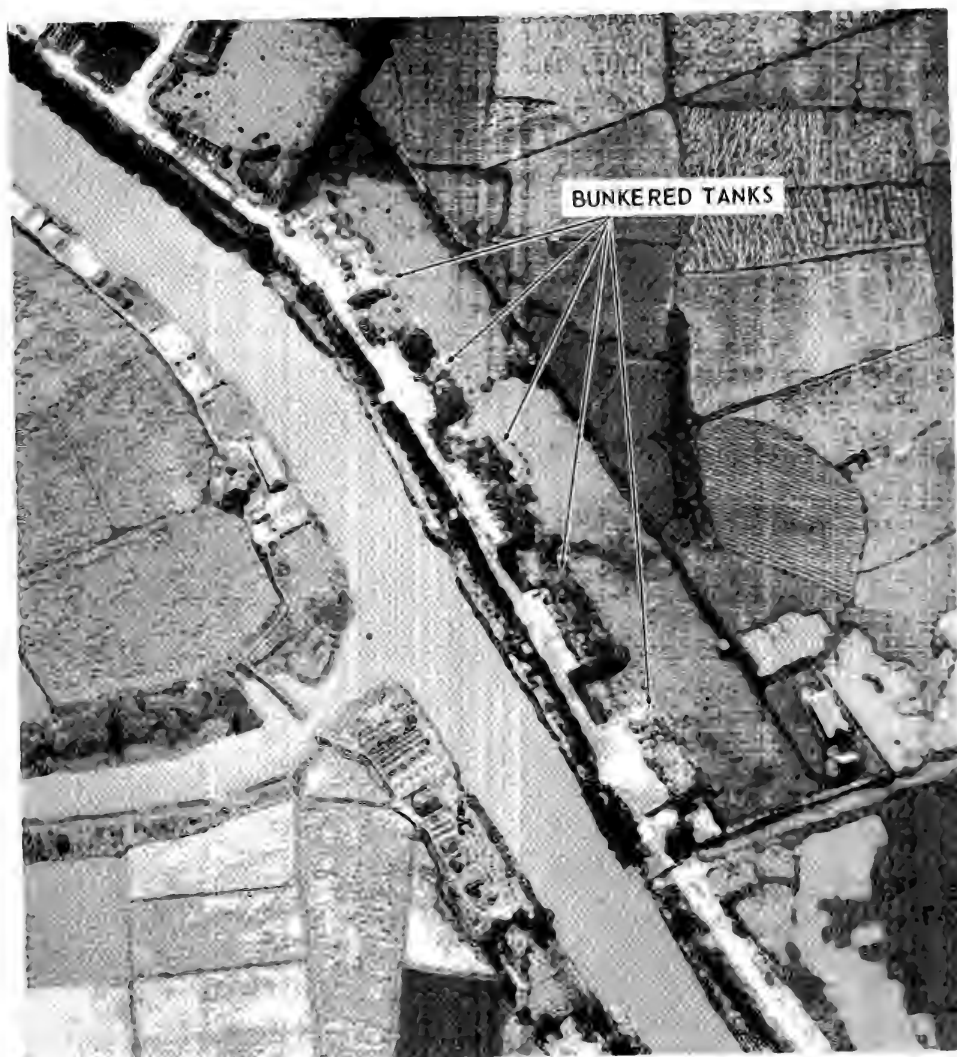
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December 1966

NAM LO PETROLEUM PRODUCTS STORAGE

XH350718
UTM COORDINATES

2032N 10617E
GEOGRAPHIC COORDINATES



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25X1C 1 December 1966

2108N 10551E
GEOGRAPHIC COORDINATES

NAME: HANOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 5)

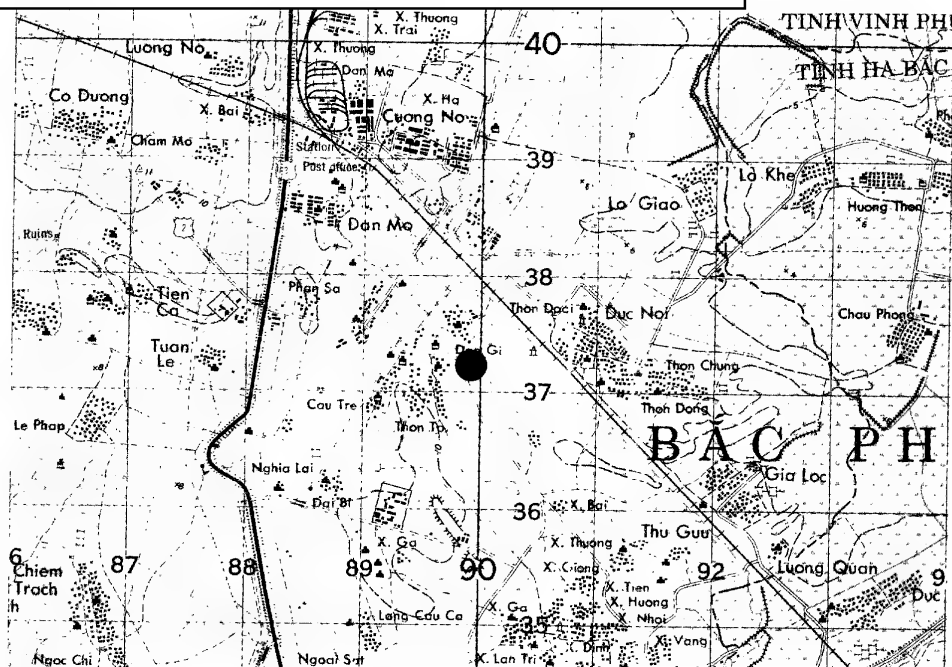
LOCATION: 0.5 NM WEST OF DUC HOI AND 6.8 NM NORTH OF HA NOI

DESCRIPTION: ROAD-SERVED AREA CONTAINS 9 LARGE AND 3 STANDARD BUNKERED TANKS.

ESTIMATED CAPACITY: TANK 261 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1965 (U)
AMS SERIES J0000 1501, SHEET 1748-11, 1ST ED, JUN 65 (U)

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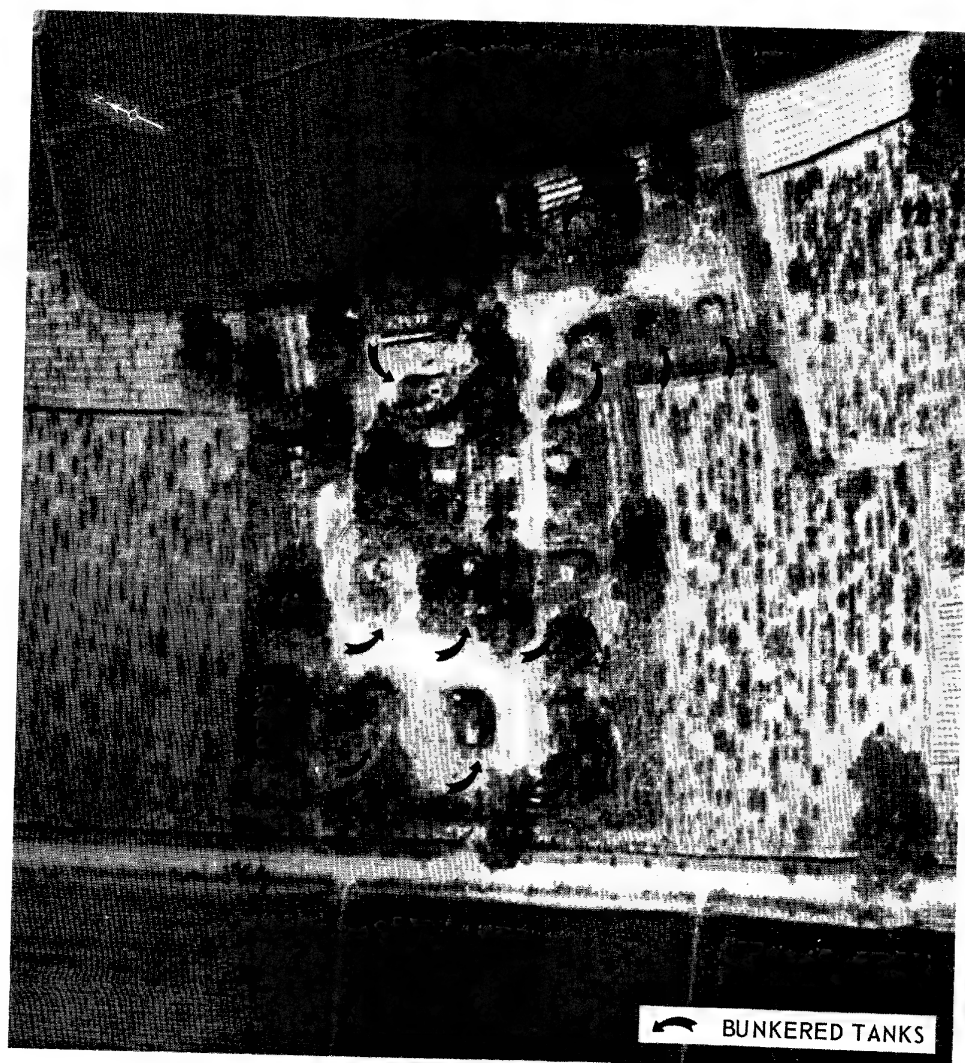
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December 1966

HANOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 5)

WJ899372
UTM COORDINATES

2108N 10551E
GEOGRAPHIC COORDINATES



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1 December 1966

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0616-
BE NUMBER

WJ809323
UTM COORDINATES

2105N 10546E
GEOGRAPHIC COORDINATES

NAME: THUY PHUONG POL STORAGE TANKS

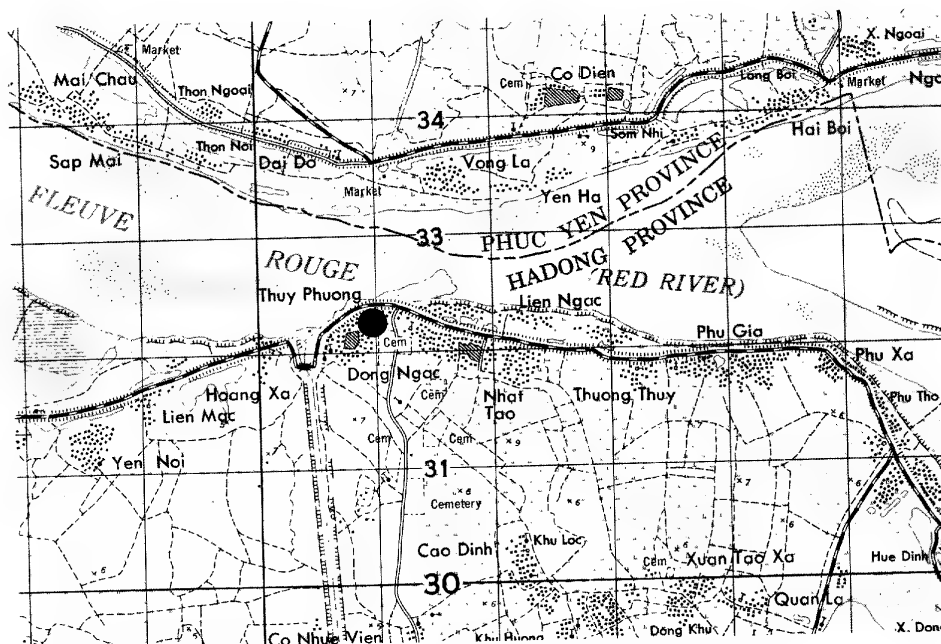
LOCATION: NE SECTION OF THUY PHUONG AND 5.3 NM NW OF HA NOI

DESCRIPTION: SITE CONTAINS A TOTAL OF 65 (55 STANDARD AND 10 LARGE) TANKS IN RANDOM STORAGE. THIRTY-SIX UNASSEMBLED TANK SECTIONS ARE ALSO OBSERVED. NO PERMANENT POL STORAGE FACILITY IS APPARENT AT THIS SITE.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3D ED, APR 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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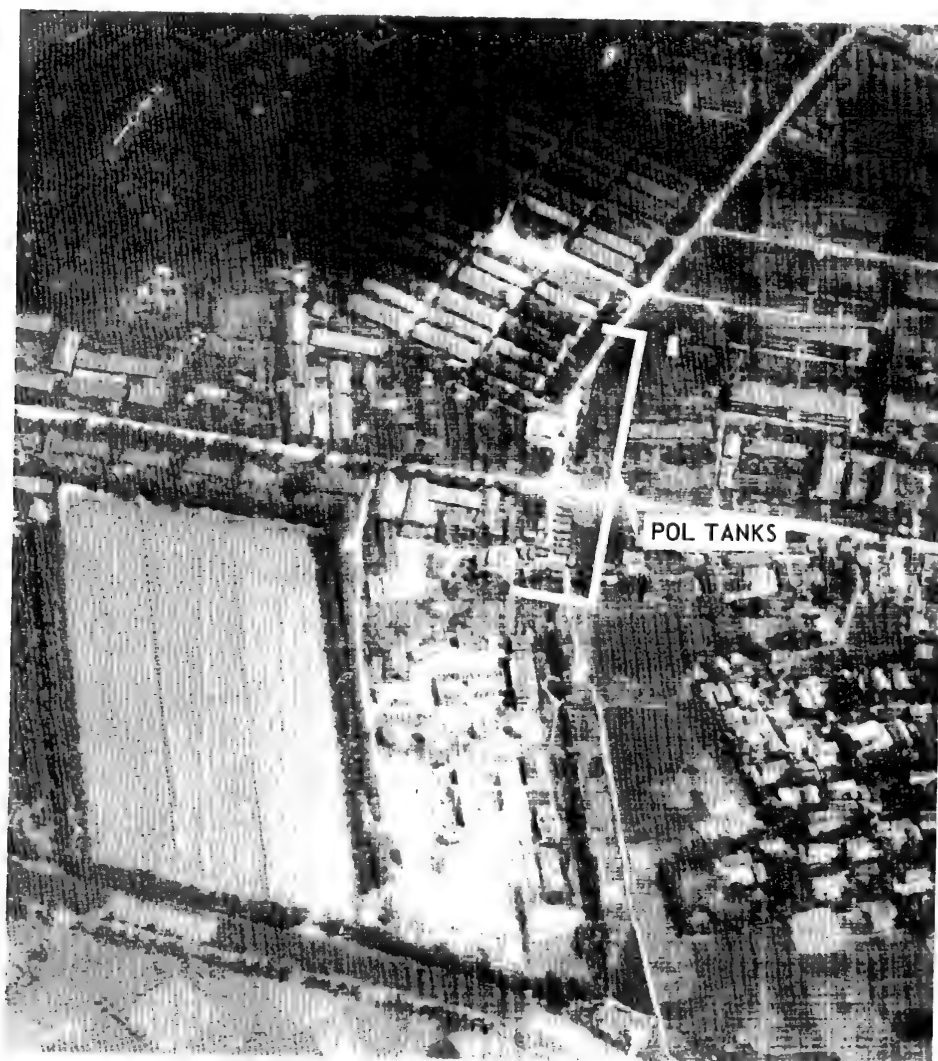
R-218/66

to November 1966

POL STOPAGE TANKS HAI PHONG

XJ736058
UTM COORDINATES

2050N 10640E
GEOGRAPHIC COORDINATES



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ber 1966

2108N 10549E
GEOGRAPHIC COORDINATES

DESCRIPTION: AREA CONTAINS 44 LARGE TANKS (1 DAMAGED) IN STORAGE YARDS.

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1964 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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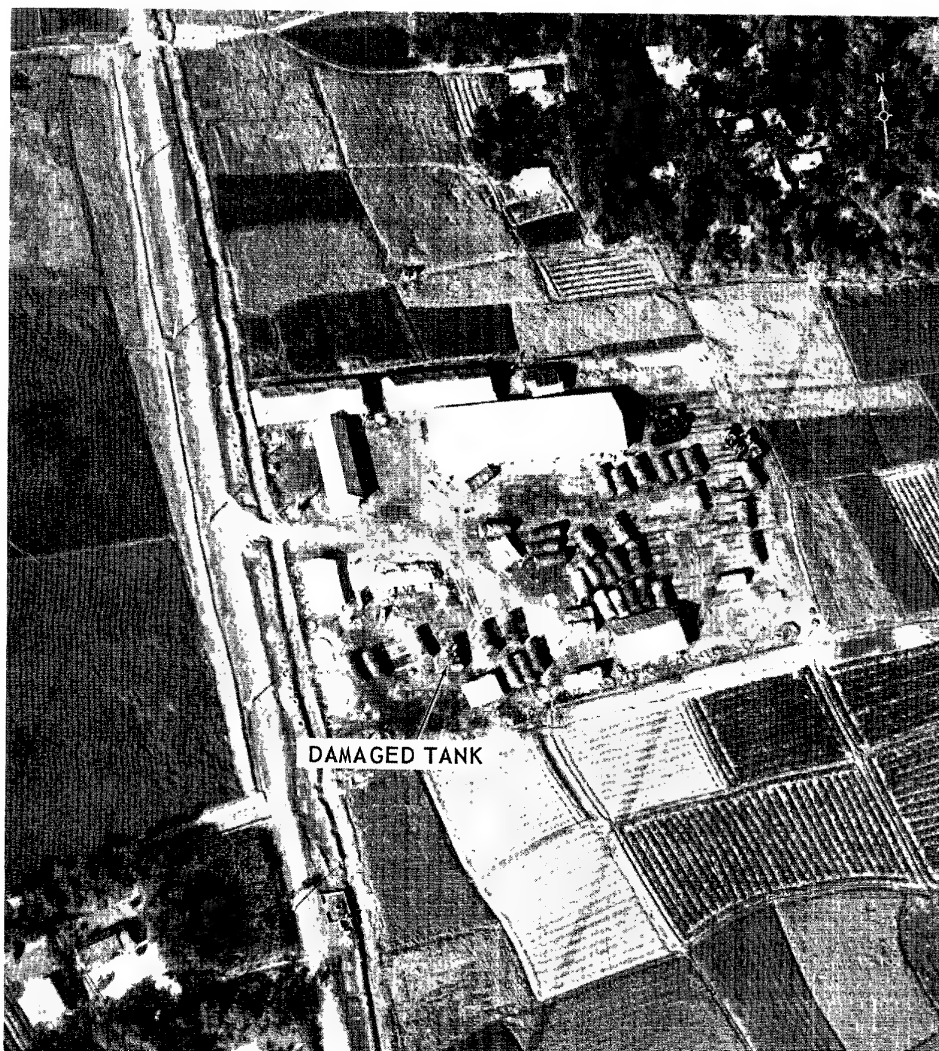
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December 1966

WJ852378
UTM COORDINATES

POL STORAGE TANKS XOM DONG

2108N 1054JE
GEOGRAPHIC COORDINATES



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1 December 1966

VIET TRI PETROLEUM PRODUCTS STORAGE
JCS-51.14

WJ453547
UTM COORDINATES

25X1A

2117N 10526E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS IMMEDIATELY SOUTH OF VIET TRI, AT THE CONFLUENCE OF THE RED AND CLAIRE RIVERS, AND 28 NM NW OF HA NOI. PRIOR TO THE FIRST STRIKE IT CONTAINED 3 MEDIUM ABOVEGROUND TANKS, 2 MEDIUM UNDERGROUND CYLINDRICAL TANKS, AND 4 HORIZONTAL SERVICE TANKS. (THE LARGE TANK OBSERVED ON [REDACTED] PHOTOGRAPHY WAS REMOVED.) THE AREA IS SERVED BY ROAD AND RAIL AND MAY HAVE A SMALL BARGE LANDING NEARBY. IT HAD A PPE-STRIKE CAPACITY OF 1,670 MT IN TANKS, EXCLUSIVE OF UNDERGROUND TANKS.

THIS DEPOT IS A KEY TRANSSHIPMENT POINT FOR POL SUPPLY MOVEMENTS TO THE NW REGIONS. LOSS OF THIS FACILITY WOULD DISRUPT THE FLOW OF POL TO THE NW AND REMOVE A SIGNIFICANT TRANSSHIPMENT POINT BETWEEN THE NW REGIONS AND THE SOURCE OF SUPPLY AT HA NOI.

NINETEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 17 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 46 ACTIVE SITES CONSISTING OF 116 OCCUPIED 37MM/57MM REVETMENTS AND 172 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 11 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE A PERIOD OF AT LEAST SEVERAL MONTHS. NORTH VIETNAM IS NOT KNOWN TO BE MANUFACTURING TANK COMPONENTS, APPROPRIATE STEEL TUBING, PIPING, PUMPS, OR OTHER ITEMS BASIC TO THE CONSTRUCTION OR MAINTENANCE OF POL STORAGE FACILITIES. THE EXISTING RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY. ALTHOUGH PREFABRICATED TANKS OF SOVIET DESIGN CAN BE INSTALLED AT A PREPARED SITE IN ABOUT A WEEK, IT APPEARS UNLIKELY THAT EITHER THE SOVIETS OR THE COMMUNIST CHINESE COULD PLACE ALL THE NECESSARY ELEMENTS TOGETHER IN LESS THAN 4 WEEKS.

BOMB DAMAGE ASSESSMENT

THIS TARGET WAS STRUCK FOR THE FIFTH TIME ON 4 SEPTEMBER 1966 BY 11 USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 30/1000#GP AND 53/500#GP BOMBS.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-A1

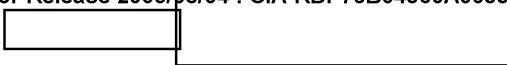
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R-218/66
November 1966

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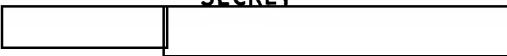


PHOTOGRAPHY [REDACTED] REVEALS 3 MEDIUM TANKS UNUSABLE DUE TO DIS-
MANTLING, 1 UNDERGROUND TANK UNDAMAGED AND 1 WITH THE TOP SECTION UNCOV-
ERED; AND 2 SERVICE TANKS DESTROYED, 1 DAMAGED, AND 1 UNDAMAGED. APPROXI-
MATELY 450 DRUMS (PROBABLY EMPTY) ARE STACKED NEAR THE TRANSSHIPMENT
POINT. THE AREA HAS A PRESENT ESTIMATED CAPACITY OF 25 MT, EXCLUSIVE OF
UNDERGROUND TANKS.

X-A2

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1 December 1966

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JCS-42

25X1A

WF344841
UTM COORDINATES

1851N 10519E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

25X1

THIS ROAD-SERVED STORAGE AREA IS 2.3 NM ENE OF PHU VAN. PHOTOGRAPHY OF [REDACTED] REVEALED 14 BUNKERS, EACH WITH 6 POL TANKS; 3 TANKS IN EXCAVATIONS; AND 2 PRINCIPAL SUPPORT BUILDINGS. PRE-STRIKE CAPACITY WAS 1,000 MT.

THIS SITE IS STRATEGICALLY PLACED TO SUPPORT VIET CONG AND PATHET LAO FORCES DRAWING SUPPLIES FROM THE AREA, AS WELL AS REGULAR NORTH VIET-NAMESE FORCES BASED ON PHU VAN.

FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 5 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 9 ACTIVE SITES CONSISTING OF 38 OCCUPIED 37MM/57MM REVETMENTS AND 4 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 10 INACTIVE SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

THIS FACILITY WILL PROBABLY NOT BE RESTORED WITHIN THE FORESEEABLE FUTURE.

BOMB DAMAGE ASSESSMENT

25X1

THE TARGET WAS STRUCK [REDACTED] BY 10 USAF AIRCRAFT, SUPPORTED BY 29 OTHER USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 79/750#GP BOMBS.

25X1D

ELEVEN OF THE 14 BUNKERS WERE DESTROYED. THE STATUS OF THE OTHER 3 COULD NOT BE CONFIRMED BECAUSE OF BLACK SMOKE WHICH OBSCURED THE AREA. OF THE 2 PRINCIPAL SUPPORT BUILDINGS, 1 WAS DESTROYED AND THE OTHER SEVERELY DAMAGED.

25X1D

[REDACTED] NOW APPEARS TO BE ABANDONED. THE SITE HAS NO STORAGE CAPABILITY AT THE PRESENT TIME.

25X1D

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-A21

25X1C

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25X1C

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1 December 1966

VINH PETROLEUM PRODUCTS STORAGE
JCS-50

25X1A

WF762644
UTM COORDINATES

1840N 10543E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS TARGET AREA IS ON THE NW BANK OF THE SONG CA (RIVER) AND 2.8 NM EAST OF VINH. PHOTOGRAPHY [REDACTED] REVEALED 3 LARGE, 5 MEDIUM, AND 6 SMALL VERTICAL ABOVEGROUND TANKS; 5 HORIZONTAL TANKS; AND 2 UNDERGROUND TANKS. PHOTOGRAPHY [REDACTED] REVEALED 8 PREVIOUSLY UNOBSERVED BUNKERED HORIZONTAL TANKS; 2 UNDERGROUND VERTICAL TANKS UNDAMAGED; 1 LARGE AND 1 MEDIUM TANK DAMAGED; AND 2 LARGE, 4 MEDIUM, 6 SMALL VERTICAL, AND 5 SERVICE TANKS DESTROYED.

PRIOR TO [REDACTED] THE TARGET WAS THE THIRD LARGEST POL STORAGE DEPOT IN THE COUNTRY WITH A CAPACITY OF 14,325 MT EXCLUSIVE OF 8 BUNKERED HORIZONTAL TANKS. THIS DEPOT PLAYED A KEY ROLE IN THE STAGING OF TRANSPORT/SUPPLY OPERATIONS INTO SOUTH VIETNAM OR LAOS. IF OPERATIONAL, THE BERTHING FACILITIES AT THIS DEPOT CAN ACCOMMODATE SMALL OCEAN-GOING OR COASTAL TANKERS IF FACILITIES AT HAI PHONG ARE LOST. THE DEPOT IS STRATEGICALLY LOCATED FOR STAGING OPERATIONS INTO SOUTH VIETNAM OR LAOS.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 3 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM INCLUDES 22 ACTIVE SITES CONSISTING OF 39 OCCUPIED 37MM/57MM REVETMENTS AND 100 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 80 INACTIVE REVETMENTS IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS RUPTURE OF STORAGE TANKS AND DISTORTION OF EXPOSED PIPING AND EQUIPMENT. FIRING OF SPILLED CONTENTS WILL ENHANCE DISABILITY.

THIS STORAGE SITE WILL PROBABLY NOT BE RESTORED IN THE FORESEEABLE FUTURE.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE EIGHTH TIME ON 9 JUNE 1966 BY 8 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 20/1000#GP BOMBS.

RESULTS OF THIS STRIKE WERE 5 SMALL TANKS DESTROYED AND 2 DAMAGED (1 SEVERE, 1 MODERATE), 5 SUPPORT BUILDINGS DESTROYED AND 5 DAMAGED (1 SEVERE, 2 MODERATE, 2 SUPERFICIAL), AND THE PIER WAS SUPERFICIALLY DAMAGED. OUTSIDE THE TARGET COMPLEX, 12 BUILDINGS WERE DESTROYED.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-A23

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1 December 1966

CUMULATIVE STRIKE RESULTS INCLUDE 2 LARGE, 4 MEDIUM, AND 6 SMALL VERTICAL ABOVEGROUND TANKS DESTROYED AND 1 LARGE AND 1 MEDIUM ABOVEGROUND TANK SEVERELY DAMAGED. ALL 5 HORIZONTAL SERVICE TANKS ARE DESTROYED. TWO UNDERGROUND CYLINDRICAL TANKS ARE UNDAMAGED, AS ARE 8 PREVIOUSLY UNOBSERVED BUNKERED HORIZONTAL TANKS. ESTIMATED CAPACITY IS NOW 1,600 MT.

X-A24

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1 December 1966

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CAN THON PETROLEUM PRODUCTS STORAGE
JCS-51.18

25X1A

XJ359660
UTM COORDINATES

2123N 10618E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS 0.8 NM NORTH OF CAN THON AND 2.2 NM EAST OF KEP AIRFIELD, ON THE NE SIDE OF ROUTE 181. THE FENCED, ROAD-SERVED AREA LIES AMONG 3 LOW HILLS. IT CONTAINS 120 LARGE BUNKERED TANKS IN 6 ROWS, AND 500 DRUMS IN THE NW PART OF THE AREA. ESTIMATED CAPACITY IS 3,000 MT IN TANKS AND 100 MT IN DRUMS.

THIS FACILITY COULD SERVE THE AIRFIELD AT KEP OR VIETNAMESE GROUND FORCES IN THE AREA, AS IT IS LESS THAN 2 MILES FROM THE RAIL LINE CONNECTING THE CHINESE TRANSSHIPMENT FACILITY AT PING-HSIANG WITH HA NOI, OR IT COULD SERVE AS A SMALL RESERVE BASE.

EIGHTEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 18 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 34 ACTIVE SITES CONSISTING OF 147 OCCUPIED 37MM/57MM REVETMENTS AND 36 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 27 IN-ACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS RUPTURE OF STORAGE TANKS AND DISTORTION OF EXPOSED PIPING AND EQUIPMENT. FIRING OF SPILLED CONTENTS WILL ENHANCE DISABILITY.

DESTRUCTION OF THIS FACILITY AND STOCKS ON HAND WOULD NOT CRITICALLY AFFECT THE NORTH VIETNAMESE. LOSS OF THE TANKS THEMSELVES WOULD PROBABLY BE THE MOST SERIOUS RESULT, AND REROUTING OF SUPPLIES WOULD BE REQUIRED.

RESTORATION OF THIS TARGET COULD BE ACCOMPLISHED VERY SOON, AS THE FACILITIES ARE NOT FIXED. RECOVERY TIME WOULD DEPEND ON THE AVAILABILITY OF SMALL TANKS TO REPLACE THOSE DAMAGED AND ON THE INCLINATION OF THE VIETNAMESE TO CONTINUE USE OF THE AREA FOR THIS PURPOSE.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B33

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

25X1

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 2)

25X1A

WJ906362
UTM COORDINATES

2107N 10552E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE AREA IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. THE SITE IS ABOUT 0.7 NM SSW OF DUC NOI AND 6.4 NM NORTH OF HA NOI. WHEN OBSERVED ON PHOTOGRAPHY [REDACTED] THE AREA CONTAINED 4 LARGE BURIED AND 3 LARGE UNBURIED TANKS, 11 STANDARD BURIED AND 12 STANDARD UNBURIED TANKS, AND 7 LARGE AND 6 STANDARD EXCAVATIONS. PHOTOGRAPHY OF [REDACTED] REVEALS 13 LARGE BURIED, 39 STANDARD BURIED, AND 8 SMALL BURIED TANKS. TOTAL CAPACITY IS 849 MT. THE AREA IS SERVED BY SECONDARY ROADS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE ABOUT 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B37

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 4)

25X1A

WJ897357
UTM COORDINATES

2107N 10551E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE SITE IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. IT IS ABOUT 1.2 NM SW OF DUC NOI AND 6.1 NM NORTH OF HA NOI. PHOTOGRAPHY [REDACTED] REVEALED AT LEAST 6 BUNKERED TANKS AND 5 EXCAVATIONS ALONG THE TREE LINE IN THE SOUTH AREA. PHOTOGRAPHY OF [REDACTED] REVEALS AT LEAST 5 ADDITIONAL BUNKERED TANKS (OBSCURED ON THE EARLIER PHOTOGRAPHY) ALONG THE TREE LINE IN THE EAST AREA. TOTAL ESTIMATED CAPACITY IS 132 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-EIGHT SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 30 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B41

~~SECRET~~

8-818/66

1 December 1966

25X1

[REDACTED]
CU VAN PETROLEUM PRODUCTS STORAGE

25X1A

WJ754908
UTM COORDINATES

2137N 10543E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS 1 NM SSW OF CU VAN AND 7.1 NM NW OF THAI NGUYEN. PRIOR TO STRIKE IT CONTAINED 94 LARGE BUNKERED TANKS WITH AN ESTIMATED CAPACITY OF 2,350 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NINE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 25 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE ELEVENTH TIME ON 17 SEPTEMBER 1966 BY 10 USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 18/750#GP, 30/500#GP, AND 2/CBU-24 BOMBS.

25X1

PHOTOGRAPHY OF [REDACTED] REVEALS THAT 7 TANKS ARE PROBABLY DESTROYED AND CRATERS ARE PRESENT IN 3 AREAS. ESTIMATED POST-STRIKE CAPACITY IS 2,175 MT.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B43

25X1C

~~SECRET~~

25X1

25X1C

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SECRET

R-218/66
1 December 1966

CU VAN PETROLEUM PRODUCTS STORAGE EAST UNDERGROUND

25X1A

WJ774926
UTM COORDINATES

2138N 10544E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE SITE IS 0.6 NM EAST OF CU VAN AND 6.2 NM NW OF THAI NGUYEN. IT CONTAINS 52 LARGE BUNKERED TANKS ALONG A 0.2-NM SEGMENT OF A SECONDARY ROAD NORTH OF ROUTE 13A. ESTIMATED CAPACITY IS 1,300 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NINE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 24 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B45

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SECRET

25X1C

25X1

PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY

25X1A

WF786702
UTM COORDINATES

1843N 10544E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS IMMEDIATELY WEST OF PHUC LOI NAVAL BASE AND APPROXIMATELY 5.2 NM NE OF VINH. IT CONTAINS 2 BUNKERS 60' X 20', EACH PROBABLY CONTAINING 6 HORIZONTAL TANKS. THIS ROAD-SERVED SITE IS PART OF THE NAVAL BASE FACILITIES. IT HAS AN ESTIMATED CAPACITY OF 300 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 5 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 12 ACTIVE SITES CONSISTING OF 18 OCCUPIED 37MM/57MM REVETMENTS AND 45 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 42 INACTIVE SITES IN THE AREA. MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE SIXTH TIME ON 4 SEPTEMBER 1966 BY 12 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 20/1000#GP AND 48/500#GP BOMBS.

PHOTOGRAPHY [REDACTED] REVEALS NO DAMAGE TO TANKS; HOWEVER, UNDERGROUND PIPING HAS BEEN DISRUPTED AND A PUMPHOUSE JUST EAST OF THE BUNKERS IS DESTROYED.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B77

25X1C

SECRET

218/66
1 December 1966

THO TRANG PETROLEUM PRODUCTS STORAGE

25X1A

WG661179
UTM COORDINATES

1909N 10537E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 0.5 NM EAST OF THO TRANG, ADJACENT TO THE THANH HOA - VINH RAIL LINE. PRIOR TO STRIKE, THE AREA CONTAINED 6 BURIED TANKS ON THE EAST SIDE OF THE RAIL LINE; WEST OF THE RAIL LINE WERE 18 BUNKERED TANKS ON A LOOP ROAD ON THE WEST SLOPE OF A HILL. APPROXIMATELY 50 DRUMS WERE ALONG THE RAIL LINE. ESTIMATED CAPACITY WAS 288 MT IN TANKS AND 10 MT IN DRUMS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

THREE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (7.5 NM) OF THE TARGET, AND 6 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM INCLUDES 3 ACTIVE SITES CONSISTING OF 4 OCCUPIED 37MM/57MM REVETMENTS. IN ADDITION, THERE ARE 17 INACTIVE SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE EIGHTH TIME ON 20 SEPTEMBER 1966 BY 23 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 4 BULLPUPS AND 28/1000#GP, 58/500#GP, AND 24/250#GP BOMBS.

PHOTOGRAPHY [REDACTED] REVEALS THAT 4 OF THE BUNKERED TANKS IN THE WEST AREA ARE DESTROYED AND 3 POSSIBLY DAMAGED. POST-STRIKE CAPACITY IS 240 MT IN TANKS AND 10 MT IN DRUMS.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B79

SECRET

SECRET

VINH PETROLEUM PRODUCTS STORAGE NORTH UNDERGROUND

25X1A

WF719695
UTM COORDINATES

1843N 10540E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE LIES 0.8 NM WEST OF DONG HAM, 1 NM SSE OF VINH AIR-FIELD, AND 3 NM NORTH OF VINH. IT CONTAINS 8 WIDELY DISPERSED BUNKERED TANKS, WITH AN ESTIMATED CAPACITY OF 96 MT, ALONG TREE LINES.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 7 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 16 ACTIVE SITES CONSISTING OF 36 OCCUPIED 37MM/57MM REVETMENTS AND 53 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 63 INACTIVE SITES IN THE AREA. MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B155

25X1C

SECRET

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R-218/66
December 1966

25X1C

MACH TRANG PETROLEUM PRODUCTS STORAGE

WJ899346
UTM COORDINATES

2106N 10551E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE SITE, WHICH LIES 0.3 NM NORTH OF MACH TRANG AND 2.1 NM NNE OF THE RED RIVER, CONSISTS OF 1 STANDARD-SIZE BUNKERED TANK AND 4 LARGE TANKS WITH AN ESTIMATED CAPACITY OF 112 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B157

25X1C

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SECRET

25X1C

SECRET

R-218/66
10032-3
1966

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

[REDACTED]
TRAM BAC PETROLEUM PRODUCTS STORAGEXJ646062
UTM COORDINATES2051N 10635E
GEOGRAPHIC COORDINATESPRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS ON THE NORTH BANK OF THE LACH TRAY (RIVER), 0.4 NM ESE OF TRAM BAC, AND 5.7 NM WEST OF HAI PHONG. THE FENCED AREA IS SERVED BY WATER AND CONSISTS OF 25 BUNKERS CONTAINING A TOTAL OF 50 LARGE TANKS, AND 1 LARGE ABOVEGROUND TANK IN THE WEST CORNER OF THE AREA. ESTIMATED CAPACITY IS 1,275 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-FOUR SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 10 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 12 ACTIVE SITES CONSISTING OF 19 OCCUPIED 37MM/57MM REVETMENTS AND 57 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 21 INACTIVE SITES IN THE AREA. SPARSE TO MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B159

25X1C

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SECRET

[REDACTED]

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

R-218/66

1 December 1966

NAM LO PETROLEUM PRODUCTS STORAGE

XH350718
UTM COORDINATES

2032N 10617E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS WATER- AND ROAD-SERVED STORAGE AREA IS 0.6 NM WEST OF NAM LO AND 6 NM NNW OF THAI BINH. THE FACILITY CONSISTS OF 40 LARGE TANKS, WITH 8 EACH EMPLACED IN 5 EARTHEN BUNKERS. CAPACITY IS 1,000 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

SIX SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 24 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE ABOUT 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B161

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

X-B161

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 5)

WJ899372
UTM COORDINATES

2108N 10551E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE AREA IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. THE SITE IS 0.5 NM WEST OF DUC NOI AND 6.8 NM NORTH OF HA NOI. THE FACILITY CONTAINS 9 LARGE AND 3 STANDARD BUNKERED TANKS WITH A CAPACITY OF 261 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B163

25X1C

ANNEX II

25X1A

| Installation Name | Capacity | |
|---|----------|--------|
| | MT Water | MT POL |
| Viet Tri Petroleum Products Storage | 25 | 21 |
| Phuc Yen Airfield POL Storage Area | 4,200 | 3,530 |
| Phuc Yen Petroleum Products Storage NNE UG | 11,800 | 9,910 |
| Ila Noi Petroleum Products Storage Thanh Am | 600 | 504 |
| Nguyen Khe Petroleum Products Storage | 5,925 | 4,977 |
| Bac Giang Petroleum Products Storage | 1,900 | 1,596 |
| Nam Dinh Petroleum Products Storage | 13,120 | 11,021 |
| Ihai Phong Petroleum Products Storage | 48,348 | 40,612 |
| Duong Nham Petroleum Products Storage | -- | -- |
| Do Son Petroleum Storage | 1,700 | 1,428 |
| Phu Van POL Storage | -- | -- |
| Vinh Petroleum Products Storage | 1,600 | 1,344 |
| Phu Qui Petroleum Products Storage | 9,000 | 7,560 |
| Ila Noi/Gia Lam Airfield POL Storage Area | 850 | 714 |
| La Danh Petroleum Products Storage PUG | 2,359 | 1,982 |
| Van Lung Petroleum Products Storage UG | 352 | 295 |
| Van Lung Petroleum Products Storage West UG | 84 | 71 |
| Hoang Mai POL Storage Area | 300 | 252 |
| Ila Noi Petroleum Products Thi Cam | 468 | 393 |
| Bai Thuong Petroleum Products Storage UG Southeast | 756 | 635 |
| Son La Petroleum Products Storage | 384 | 323 |
| Thuong Thon Petroleum Products Storage UG | 456 | 383 |
| Ngoc Son Petroleum Products Storage PUG | 348 | 292 |
| Thai Lai Petroleum Products Storage | 120 | 101 |
| Yen Hau Petroleum Products Storage PUG | 396 | 333 |
| Thanh Lang Petroleum Products Storage PUG | 1,044 | 877 |
| Ila Noi Petroleum Products Storage UG Thanh Liet (Area 1) | 516 | 433 |
| Ila Noi Petroleum Products Storage UG Thanh Liet (Area 2) | 120 | 101 |
| Bang So Petroleum Products Storage PUG | 234 | 197 |
| Son Chau Petroleum Products Storage PUG | 336 | 282 |
| Can Thon Petroleum Products Storage | 3,100 | 2,604 |
| Ila Noi Petroleum Products Storage Duc Noi (Area 1) | 1,108 | 931 |
| Ila Noi Petroleum Products Storage Duc Noi (Area 2) | 849 | 713 |
| Ila Noi Petroleum Products Storage Duc Noi (Area 3) | 300 | 252 |
| Ila Noi Petroleum Products Storage Duc Noi (Area 4) | 132 | 111 |

ANNEX II (Continued)

25X1A

| BE No. | Installation Name | Capacity | |
|--------|---|----------|--------|
| | | MT Water | MT POL |
| | Cu Van Petroleum Products Storage | 2,175 | 1,827 |
| | Cu Van Petroleum Products Storage East UG | 1,300 | 1,092 |
| | Dao Quan Petroleum Products Storage East | 444 | 373 |
| | Dao Quan Petroleum Products Storage West | 360 | 302 |
| | Nam Dinh Petroleum Products Storage PUG | 300 | 252 |
| | Thai Nguyen Petroleum Products Storage PUG South | 1,320 | 1,109 |
| | Phuc Yen Airfield POL Storage Area 1 | 300 | 252 |
| | Phuc Yen Airfield POL Storage Area 2 | 240 | 202 |
| | Xom Duong Quan Petroleum Products Storage UG East | 72 | 60 |
| | Xom Duong Quan Petroleum Products Storage UG | 43 | 36 |
| | Nui Tap Tinh POL Storage Area | 26.6 | 22.3 |
| | Sac Le POL Storage Area | 168 | 141 |
| | Phu Dong POL Storage Area | 420 | 352 |
| | Thuan Le POL Storage Area | 273 | 229 |
| | Phuc Loc Petroleum Products Storage | 156 | 131 |
| | Thanh Hoa POL Storage Area | 118 | 99 |
| | Ba Don POL Storage Area | 472 | 396 |
| | Phuc Loi Petroleum Products Storage Navy | 300 | 252 |
| | Tho Trang Petroleum Products Storage | 250 | 210 |
| | Ninh Giang Petroleum Products Storage | 324 | 272 |
| | Viet Yen Petroleum Products Storage | 1,440 | 1,210 |
| | Kep Ha Petroleum Products Storage | 96 | 81 |
| | Tien Hoi Petroleum Products Storage | 468 | 393 |
| | Dong Mai Petroleum Products Storage | 276 | 232 |
| | Xom Lang POL Storage | 312 | 262 |
| | Van Hoa POL Storage | 144 | 121 |
| | Phu Lo Petroleum Products Storage NNE UG | 228 | 192 |
| | Jaune Island POL Storage | 48 | 40 |
| | Co Nhue Hoang POL Storage | 180 | 151 |
| | Quang Suoi Petroleum Products Storage | 148 | 124 |
| | Trung Phu Petroleum Products Storage | 184 | 155 |
| | Gia Hoa Petroleum Products Storage PUG | 132 | 111 |
| | Bai Chay Petroleum Products Storage | 53 | 45 |
| | Vinh Petroleum Products Storage Yen Thinh | 132 | 111 |
| | Ba Don Petroleum Products Storage UG West | 99 | 83 |
| | Bac Ninh Petroleum Products Storage | 204 | 169 |
| | Vinh Petroleum Products Storage PUG Xuan Yen | 70 | 59 |

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ANNEX II (Continued)

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| | Installation Name | Capacity | |
|--|--|----------|--------|
| | | MT Water | MT POL |
| | Tri Binh Petroleum Products Storage | 48 | 40 |
| | Thuong Lam Petroleum Products Storage | 96 | 81 |
| | Cau Cong Petroleum Products Storage | 384 | 323 |
| | Tung Tu Petroleum Products Storage UG | 375 | 315 |
| | Don Son Petroleum Products Storage | 744 | 625 |
| | Quy Khe Petroleum Products Storage | 1,344 | 1,129 |
| | Tran Xa Petroleum Products Storage | 1,250 | 1,050 |
| | Than Hoa Petroleum Products Storage | 84 | 71 |
| | Tram Du Petroleum Products Storage | 1,050 | 882 |
| | Luc Nong Petroleum Products Storage | 720 | 605 |
| | Thai Nguyen Petroleum Products Storage | 99 | 83 |
| | Tien Nong Petroleum Products Storage | 420 | 353 |
| | Vinh Petroleum Products Storage PUG Ben Thuy | 168 | 141 |
| | Chi Linh Petroleum Products Storage | 1,728 | 1,452 |
| | Vinh Petroleum Products Storage PUG Yen Dai | 72 | 60 |
| | Hoang Pha Petroleum Products Storage | 240 | 202 |
| | Kien An POL Storage | 288 | 242 |
| | Phu Thi Petroleum Products Storage | 360 | 302 |
| | Phuc Yen Petroleum Products Storage | 72 | 60 |
| | Vinh Petroleum Products Storage North UG | 96 | 81 |
| | Mach Trang Petroleum Products Storage | 112 | 94 |
| | Tram Bach Petroleum Products Storage | 1,275 | 1,071 |
| | Nam Lo Petroleum Products Storage | 1,000 | 840 |
| | Hu Noi Petroleum Products Storage Duc Noi (Area 5) | 261 | 219 |

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| Xom Duong Quan Petroleum Products Storage UG East | 1752N 10552E | B59, B60, X-B59 |
| Phu Loc Petroleum Products Storage | 1714N 10639E | B71, B72, X-B71 |
| Xom Lang POL Storage | 1737N 10626E | B91, B92, X-B91 |
| Ba Don Petroleum Products Storage UG West | 1745N 10625E | B111, B112, X-B111 |
| Ba Don POL Storage Area | 1745N 10626E | B75, B76, X-B75 |
| Thanh Thuy POL Tanks | 1747N 10615E | D9, D10 |
| Dien Xa POL Storage | 1822N 10544E | C13, C14 |
| Ngoc Son Petroleum Products Storage PUG | 1832N 10542E | B17, B18, X-B17 |
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| Vinh Petroleum Products Storage | 1840N 10543E | A23, A24, X-A23 |
| Vinh Petroleum Products Storage PUG Xuan Yen | 1841N 10540E | B115, B116, X-B115 |
| Vinh Petroleum Products Storage PUG Yen Dai | 1842N 10540E | B145, B146, X-B145 |
| Vinh Petroleum Products Storage North UG | 1843N 10540E | B155, B156, X-B155 |
| Phuc Loi Petroleum Products Storage Navy | 1843N 10544E | B77, B78, X-B77 |
| Ky Tran POL Storage Area | 1847N 10540E | C1, C2 |
| Phu Van POL Storage Area | 1851N 10519E | A21, A22, X-A21 |
| Nho Lam POL Drum Transshipment Area | 1856N 10535E | D13, D14 |
| Thuan Le POL Storage Area | 1812N 10604E | B69, B70, X-B69 |
| Ky Anh POL Drum Storage | 1840N 10618E | C3, C4 |
| Yen Hau Petroleum Products Storage PUG | 1908N 10534E | B21, B22, X-B21 |
| Tho Trang Petroleum Products Storage | 1909N 10537E | B79, B80, X-B79 |
| POL Tanks Lang Can | 1911N 10529E | D45, D46 |
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| Son Chau Petroleum Products Storage PUG | 1918N 10543E | B31, B32, X-B31 |
| Tri Binh Petroleum Products Storage | 1946N 10532E | B117, B118, X-B117 |
| Tri Binh POL Drum Storage Area | 1947N 10532E | C11, C12 |
| Thanh Hoa POL Storage Area | 1947N 10547E | B73, B74, X-B73 |
| Thanh Hoa Petroleum Products Storage | 1949N 10546E | B131, B132, X-B131 |
| Thanh Hoa POL Distribution Area | 1950N 10546E | C7, C8 |
| Bai Thuong Petroleum Products Storage UG Southeast | 1951N 10525E | B11, B12, X-B11 |
| Quang Suoi Petroleum Products Storage | 2007N 10552E | B101, B102, X-B101 |
| Thuong Thon Petroleum Products Storage UG | 2047N 10540E | B15, B16, X-B15 |
| Thuong Lam Petroleum Products Storage | 2048N 10540E | B119, B120, X-B119 |
| Bang So Petroleum Products Storage PUG | 2053N 10553E | B29, B30, X-B29 |
| Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1) | 2057N 10548E | B25, B26, X-B25 |
| Ha Dong POL Trucks | 2057N 10549E | D23, D24 |

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| Luc Nong Petroleum Products Storage | 2055N 10634E | B135, B136, X-B135 |
| Thai Lai Petroleum Products Storage | 2055N 10637E | B19, B20, X-B19 |
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